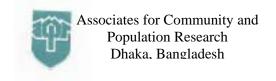
# 2001 RURAL SERVICE DELIVERY PARTNERSHIP EVALUATION SURVEY

## HOUSEHOLD SURVEY REPORT

FEBRUARY 2003





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#### **SUMMARY**

The 2001 Rural Service Delivery Partnership (RSDP) Evaluation Survey was designed to evaluate the rural component of the National Integrated Population and Health Program (NIPHP), a seven-year USAID health and population project. The survey collected information from 9,625 women in RSDP project areas and 3,122 women in non-RSDP areas about the use of Essential Service Package (ESP) components at RSDP clinics and elsewhere. It also collected information on women's knowledge of health promotion behaviors, awareness of RSDP services, and quality of treatment at RSDP clinics. The survey was conducted by Associates for Community and Population Research (ACPR), a Dhaka-based research firm, with technical assistance from the MEASURE *Evaluation* Project at the University of North Carolina at Chapel Hill. The survey had two main objectives: (1) to collect information on and to monitor changes in the USAID performance indicators since the RSDP Baseline Survey in 1998 and (2) to conduct an evaluation of the impact of the RSDP program on the health of the project's catchment area population by linking data on individual behaviors and health outcomes with data on the health service supply environment.

A principal aim of the RSDP program is to provide basic health services in "under-served" areas, i.e. areas where government services are relatively lacking. Absence of government services has meant that RSDP catchment areas are characterized by absence of doorstep delivery of family planning methods and charges for services at NGO providers. The determination of "under-served," however, was made by the government using largely non-quantifiable criteria. RSDP areas were therefore evaluated using several parameters, including the socioeconomic status of the population and the proximity to different types of providers, to determine whether the project in fact was working in "underserved" areas.

The main findings assessing changes in the performance indicators are summarized below. The evaluation of the impact of the RSDP program is presented in a separate report.

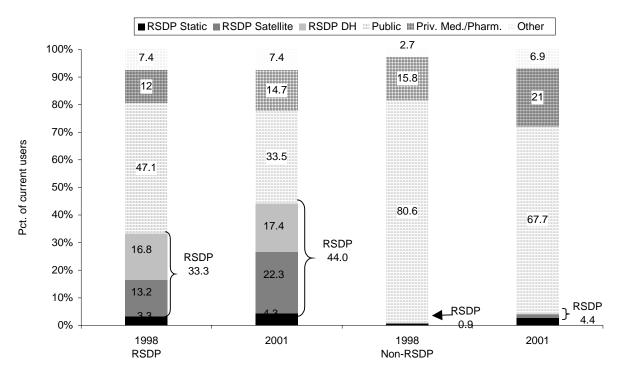
#### Main Findings:

- There are no significant socio-economic status differences among the population in RSDP areas and other rural areas of Bangladesh, indicating that RSDP areas were not 'worse-off' than the rest of Bangladesh (measured by socio-economic indicator only).
- Except for ANC and ORT use during diarrhea, services utilization is not higher in RSDP areas compared to the non-project areas.
- RSDP's market share for several essential services is increasing. People increasingly choose RSDP as a source of services over other sources. This does not necessarily result in more people being served, but does result in more people being served by RSDP. This indicates good customer satisfaction and bodes well for the potential expansion of NGO services, resources permitting.
- RSDP does poorly in reaching children with pneumonia and diarrhea who need treatment. Very few such children are treated in RSDP clinics, preferring local pharmacies or traditional doctors instead. This may be partially due to the scattered location of RSDP catchment areas relative to RSDP static clinics.
- Equity of service use by rich and poor is generally higher in RSDP project areas than in non-RSDP comparison areas. The gap between service use by richest and poorest is smaller in RSDP areas than in non-project areas.
- The poor use RSDP services more than the rich do. RSDP generally serves a higher proportion of poor users than rich users.

Contraceptive Use: The prevalence rate of modern contraceptive use in RSDP areas is 40.4 percent of currently married women. This is a small increase from the modern contraceptive prevalence rate of 36.5 percent in the 1998 Baseline Survey. A similar sized increase was observed in the non-RSDP areas as well, from 37.6 percent in 1998 to 41.6 percent in 2001. In RSDP areas, small increases were observed in the use of oral contraceptives (from 18.9 percent to 20.4 percent) and injectables (from 8.1 percent to 11.0 percent). The prevalence of female sterilization declined slightly from 6.2 percent to 5.5 percent. The contraceptive prevalence rate for married adolescents (26.2 percent) did not change significantly from the Baseline Survey.

Figure 1 shows that the share of RSDP services in total contraceptive supply increased by 11 percentage points, from 33.3 percent to 44.0 percent of users. The largest increase came from an increase in the share attributable to use of RSDP satellite clinics from 13.2 to 22.3 percent of current users. Much of this increase came from new users of contraception, but at least some also came from users who switched from government suppliers of modern contraception. In RSDP areas, the government share of modern contraceptive supply fell from 47.1 percent of users to 33.5 percent of users, making RSDP sources the leading suppliers of modern contraception in project areas. The government share fell also in non-RSDP areas, from 80.6 to 67.7 percent of users, with increasing shares experienced by private medical/pharmacy sources, other sources, and even RSDP sources.

Figure 1: Source of Modern Contraception, RSDP and non-RSDP areas, 1998 and 2001



There is relatively equal use of modern contraception by the poor and non-poor (figure 2). Current use of modern contraception is nearly identical for both women in the lowest asset quintile (38.0 percent) and women in the highest asset quintile (39.4). This pattern was similar in non-RSDP areas (39.0 versus 41.1 percent). However, while overall use does not differ across quintiles, women in the lowest asset quintile are considerably more likely to use RSDP providers than women in the highest asset quintile (figure 3). Approximately 45 percent of women in the lowest socioeconomic quintile who use contraception get their method from RSDP providers as compared with only a third of women in the highest socioeconomic quintile.

Figure 2: Current Use of Contraception by Socioeconomic Quintile, RSDP and non-RSDP areas

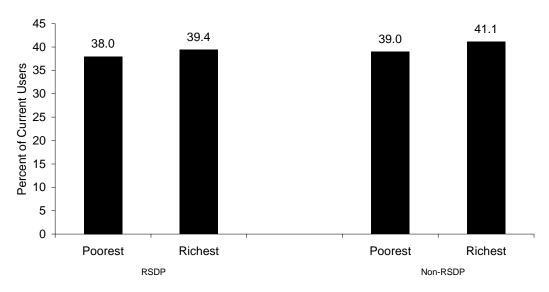
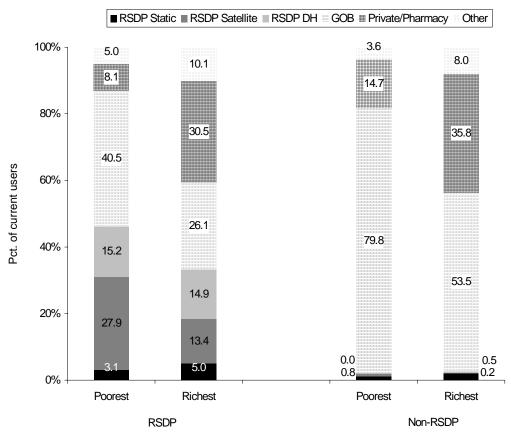


Figure 3. Source of Contraceptive Method by Socioeconomic Quintile, RSDP and non-RSDP areas



Discontinuation rates within 12 months of starting a contraceptive method were calculated by method and for RSDP/non-RSDP women using the contraceptive calendar. In RSDP areas, discontinuation rates were highest for condoms (64.2 percent). Among other modern methods (pill, IUD, injectables), discontinuation rates were relatively uniform at 42-43 percent. Discontinuation rates for all methods were lowest in Rajshahi (35.8 percent) and highest in Chittagong and Sylhet (47percent) and lowest for injectables (23.4 percent). In non-

RSDP areas, the discontinuation rate for pills, and IUDs were similar to those in RSDP areas. Overall, however, discontinuation rates for all methods were slightly higher (45.2 percent) in non-RSDP areas.

Antenatal Care: For women with a live birth in the one-year preceding the survey, 46.8 percent made at least one antenatal care visit. This is an increase from the 39.3 percent recorded by the 1998 Baseline Survey. In non-RSDP areas, the proportion of women receiving any antenatal care actually decreased from 42.7 percent of women giving birth in the year prior to the survey to 39.4 percent of women. The percentage of pregnant women receiving iron supplementation was 41 percent.

The share of RSDP providers for ANC care increased by 12 percentage points, from 46.5 percent of women giving birth in the year prior to the survey and seeking ANC care to 58.5 percent of such women (figure 4). Most of this represented an increase in ANC usage- only a small proportion resulted from a decline in use of public sources of ANC care.

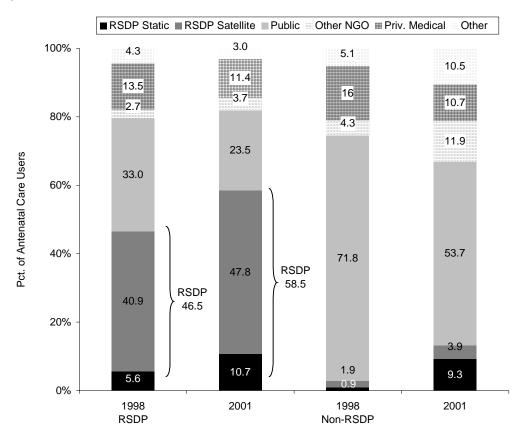


Figure 4: Source of Antenatal Care, RSDP and Non-RSDP areas, 1998 and 2001

The large proportion of antenatal care provided by RSDP may have helped to close the gap in antenatal care use between the rich and poor (Figure 5). This gap was approximately 10 percentage points smaller in RSDP areas – where 34.6 percent of women in the lowest socioeconomic quintile used antenatal care compared to 70.5 percent of women in the richest socioeconomic quintile – than in non-RSDP areas. In non-RSDP areas, rich women were more than three times as likely to use antenatal care as women in the poorest socioeconomic quintile.

RSDP clinics clearly provide the majority – approximately three-quarters - of all antenatal care for women in the poorest asset quintile in RSDP areas. They also provide 29.5 percent of antenatal care for women in the highest asset quintile in RSDP areas (Figure 6).

Figure 5: Use of Antenatal Care by Socioeconomic Quintiles, RSDP and Non-RSDP Areas

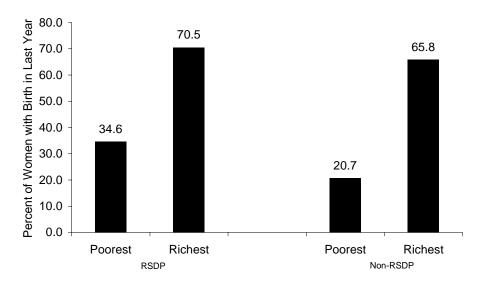
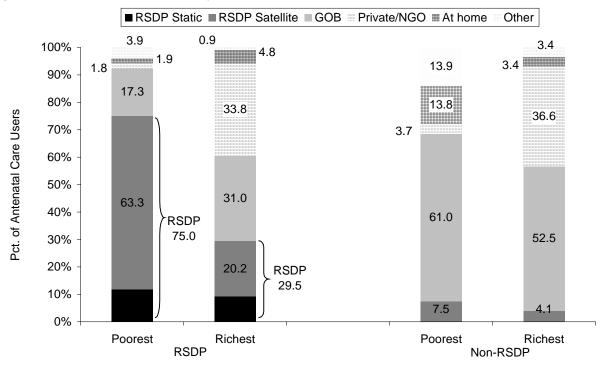


Figure 6: Source of Antenatal Care by Socio-economic Quintile, RSDP and non-RSDP areas



Childhood Vaccinations: Almost 90 percent of children aged 12-23 months received their BCG vaccination, nearly identical to the Baseline Survey rate in 1998 (Table 1). During the same period, polio3 vaccination rates increased slightly from 72.1 percent to 78.6 percent of children 12-23 months. However both DPT3 and measles vaccination rates declined. The percent of children 12-23 months receiving DPT3 vaccinations declined from 67.6 to 55.2 percent. Measles vaccinations declined from 68.9 percent to 62.9 percent of children aged 12-23 months. In non-RSDP areas, a decline was also observed in DPT3 coverage, although not in measles coverage. RSDP providers constituted an increasing share of immunization services, increasing from just over one-third of all vaccinations in 1998 to nearly sixty percent of all vaccinations in 2001.

Table 1: Percent of children 12-23 months old vaccinated any time before the survey

Antigen	RSDP Project Areas		Non-RS	DP Areas
	1998	2001	1998	2001
BCG	89.3%	89.0%	89.7%	90.7%
DPT 3	67.6%	55.2%	68.1%	59.5%
Polio 3	72.1%	78.6%	71.7%	85.5%
Measles	68.9%	62.9%	70.7%	71.7%
All antigens	58.9%	45.8%	59.4%	51.8%

Table 2: Percent of Immunized Children Receiving Vaccinations from RSDP Facilities

Antigen	RSDP Project Areas		Non-RSI	OP Areas
	1998	2001	1998	2001
BCG	34.9%	57.8%	1.8%	5.1%
DPT 3	35.5%	61.7%	1.3%	4.3%
Polio 3	34.6%	58.6%	1.1%	4.5%
Measles	39.7%	60.6%	8.8%	4.3%

As with contraception and antenatal care, RSDP providers appear to provide a high proportion of vaccinations, particularly for the poor (Figure 7). The gap in DPT3 vaccinations between children in the richest and poorest quintiles is 10 percentage points smaller (47.3 versus 67.7 percent) in RSDP areas as compared with non-RSDP areas (47.2 versus 77.2 percent). Overall, however, there does not appear to be significantly greater use of RSDP providers for vaccinations by the rich in RSDP areas (60.2 percent) as compared to the poor (57.5 percent). Children in the richest quintile are considerably more likely to use RSDP static clinics than children in the poorest quintile (17.6 percent versus 2.7 percent) (Figure 8).

Figure 7: DPT3 Vaccination, Children 12 to 23 months, by Socioeconomic Quintile, RSDP and non-RSDP areas

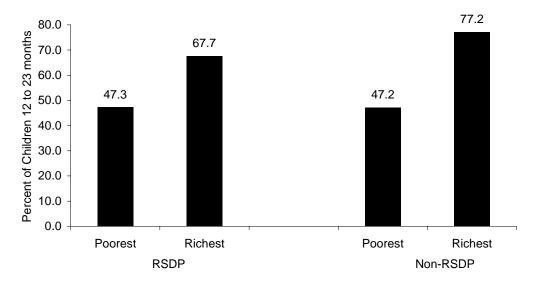
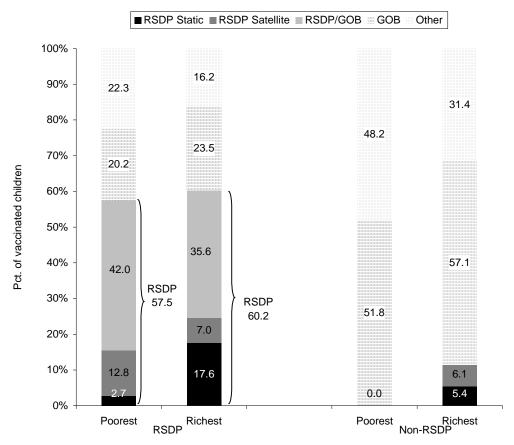


Figure 8: Source of DPT3 Vaccination, Children 12 to 23 months, by Socioeconomic Quintile, RSDP and non-RSDP areas



Child Health: For the services for which comparable data were collected in the Baseline Survey, there have been some notable improvements. Among children 6-59 months, 66.4 percent received a vitamin A capsule in the past 6 months in the 2001 Survey, as compared with 62.5 percent of children in the Baseline Survey. In RSDP comparison areas, however, a decline was observed in vitamin A consumption in the previous 6 months, from 76.5 percent to 71.4 percent of children 6 to 59 months of age.

Of the 6.2 percent of children with diarrhea in the 2 weeks preceding the survey, most were treated with either Packet ORS or Labon gur solutions. The proportion receiving packet ORS increased from the Baseline Survey, as did the proportion receiving homemade water-salt-sugar/labon gur solutions. The overall proportion of children with diarrhea receiving ORT (ORS and/or labon gur solution) increased from 62.9 percent in 1998 to 75.4 percent in 2001. A larger increase occurred in non-RSDP areas, from 50.9 percent to 67.5 percent of children with diarrhea.

The share of RSDP providers in treatment of diarrhea was small in both years -3.4 percent in 1998 and 4.5 percent in 2001.

Just over 15 percent of children had symptoms of an acute respiratory infection in the 2 weeks preceding the survey, twice the observed rate in the Baseline Survey. In RSDP areas, 24 percent of children with ARI symptoms were taken to a health provider (excluding traditional doctors/pharmacies), considerably lower than the 32.4 percent who sought care at medical facilities in the Baseline Survey. In non-RSDP areas, the proportion seeking care was similar, 25 percent. The proportion seeking care from any source is however as high as 75 percent in both RSDP and non-RSDP areas. Among those who sought care from any source, less than 0.5 percent went to a RSDP provider.

Approximately 54 percent of children under 2 months of age in RSDP areas were exclusively breastfed; 38 percent of all children under 6 months were exclusively breastfed. Nearly 60 percent of children 6-9 months of age were breastfed and receiving complementary foods. Only 7.9 percent of children 6-9 months were still exclusively breastfeeding.

Awareness of RSDP Services: Since the Baseline Survey, reported awareness of services offered at RSDP satellite clinics has increased for clinical family planning services (50.2 percent) and EPI (65.8 percent) but has declined for ANC (45.9 percent) and ORS services (9.2 percent). For static clinics, which are spontaneously mentioned by only 8.1 percent of women identifying a clinic source of health or family planning services, awareness has increased for clinical family planning methods (61.8 percent), ANC (44.4 percent), and EPI (47.2 percent) but declined for non-clinical family planning methods (58.5 percent) and ORS services (13.8 percent). Almost all users of RSDP satellite clinics rate quality of care, staff behavior and cleanliness as good or excellent.

Knowledge of Health Promotion Behaviors: Knowledge of modern family planning methods and their purposes are high. Over 97 percent of married women in RSDP areas can identify at least 3 family planning methods. This proportion is slightly higher in non-RSDP areas. Nearly 74 percent of women know of female sterilization as a method for limiting births. Just over 83 percent of women cite oral contraceptives as a method for spacing; 62.7 percent also cite injectables.

Women whose children had not yet completed all vaccinations and who had a vaccination card were asked if they knew when their child's next vaccination was due. Only one-quarter of women in RSDP areas know when the next immunization is scheduled. Rates are similar in non-RSDP areas. Awareness is generally higher in Chittagong and lower in Dhaka divisions.

Women are generally knowledgeable about treatment of childhood illnesses. Most women, 71.5 percent, report that they would consult a doctor when confronted with a child with symptoms of acute respiratory infections. Only 28.7 percent, however, explicitly say that they would take the child to a medical facility. Almost 87

percent of women report that treatment of diarrhea involves giving ORT. Just 55 percent say that they would take a child to a medical facility.

Knowledge of the exact reasons for taking vitamin A are low. Only 18 percent of women in RSDP areas say that vitamin A helps to prevent night blindness. One fifth say that vitamin A increases a child's resistance to infections. Only 45 percent report that vitamin A improves children's health.

Except for tetanus, awareness of complications of pregnancy is low. Only 36 percent of women identified retention of the placenta, only 28 percent identified eclampsia and only 14 percent identified prolonged labor as complications of pregnancy. Less than 10 percent of women do not know a single danger sign or complication of pregnancy. Nearly all of the women identifying a complication of pregnancy know to seek care at a medical facility.

Early Childhood Mortality: The infant mortality rate in RSDP areas for the 5-year period preceding the survey was 77 deaths per 1,000 live births, while the child mortality rate was 28.6 deaths per 1,000. These rates are higher than the rates in non-RSDP areas – 70.5 and 24.1 deaths per 1,000 live births respectively. The 10-year period infant mortality rates in RSDP areas were highest in Sylhet (105.3) and Dhaka (98.7) divisions and lowest in Chittagong division (67.3). In both RSDP and non-RSDP areas, mortality rates have declined significantly over the past 15 years.

Fertility: The total fertility rate for the three years preceding the survey in RSDP areas was 3.6 births per woman. Fertility rates were not calculated in the 1998 Baseline Survey so no comparison of trends can be made between the two surveys. However, using period specific fertility rates from this survey, a notable declining trend can be observed from the period preceding the formation of the project to the most recent 5-year period. Fertility declined from 5.0 births per woman in RSDP areas in the 5-10 year period preceding the survey to 3.7 births per woman in the 0-5 year period preceding the survey. However, this decline was mirrored by a similar sized decline in non-RSDP areas.

	INDICATOR	1998 Baseline Survey	2001 RSD Evaluation Survey
O: F	ertility reduced; family health improved		
	Total fertility rate 15-49 (3 year recall)	X	3.6
	Infant Mortality Rate	X	77.0
	Child Mortality Rate	X	28.6
	Under 5 Mortality Rate	X	103.4
R 1:	Increased use of high-impact elements of an "Essential Service Packs	age" among targe	t population
	lly in low-performing areas.	0 0	• •
	Contraceptive prevalence rate (modern methods) among currently n	narried women	
	Any method	45.5	47.0
	Any modern method	36.5	40.4
	Pill	18.9	20.4
	IUD	1.0	0.7
	Injection	8.1	11.0
	Condom	1.8	1.8
	Female Sterilization	6.2	5.5
	Male Sterilization	0.3	0.4
	Norplant	0.2	0.5
	Any traditional	9.0	6.5
	Not Using Any method	54.5	53.0
	Contraceptive prevalence rate (modern methods) among married ad		
	Age 10-14	15.1	16.9
	Age 15-19	26.6	27.4
	Percent of children age 12-23 months who received specific vaccine		
	time before the survey (source is either vaccination card or mother's		
	BCG	89.3	89.0
	DPT3	67.6	55.2
	Polio3	72.1	78.6
	Measles	68.9	62.9
	All	58.9	45.8
	Percent of children (6-59 months) receiving vitamin-A capsules	62.5	66.4
	semi-annually		
	Percent of child diarrheal episodes treated with ORT in target popul	ations	
	Packet ORS	53.1	66.6
	Labon gur solution	12.6	24.4
	ORT	62.9	75.4
	Percent of child ARI cases treated in target populations	02.7	, , , , ,
	Health Facility/Provider	32.4	23.7
	Percent of live births for which women in target populations made 1		
	Women >6 months pregnant or live birth in last 1 year	39.4	iis, by age
	Women with a live birth in last 1 year	39.3	46.8
	Percent of pregnant women taking iron supplementation	X	41.3

	INDICATOR	1998 Baseline Survey	2001 RSD Evaluation Survey
	acreased knowledge and changed behaviors related to high	-priority health problems,	especially ir
w-peri	forming areas.  Percent of married women in catchment populations that of	can name available ESP servi	ices related t
	maternal health, reproductive health, child health	Jan name avanacie 251 Servi	icos related t
	Static Clinic		
	Clinical FP Method	56.3	61.8
	Non-clinical FP Method	70.1	58.5
	Advice for side effects	3.9	4.1
	ANC	38.4	44.4
	PNC	5.8	6.7
	EPI	20.0	47.2
	Oral Saline	22.8	13.8
	Satellite Clinic	22.8	13.0
	Clinical FP Method	41.5	50.2
	Non-clinical FP Method	59.4	59.7
	Advice for side effects of family planning use	2.2	2.2
	ANC	57.5	
			45.9
	PNC	7.4	5.8
	EPI	54.0	65.8
	Oral Saline	15.4	9.2
	Percent of potential clients who can describe three family	modern planning methods in	cluding
	indications for use:	, , , , , , , , , , , , , , , , , , ,	
	Know three methods	X	97.4
	Know for limiting		
	Female Sterilization	X	73.6
	Male Sterilization	X	10.6
	Pill	X	17.7
	IUD	X	9.1
	Injection	X	23.8
	Implants	X	4.2
	Condoms	X	2.4
	Know for spacing		
	Female Sterilization	X	1.3
	Male Sterilization	X	0.3
	Pill	X	83.1
	IUD	X	19.3
	Injection	X	62.7
	Implants	X	8.3
	Condoms	X	21.0
	Percent of mothers who know when their child's next imm		

## Summary Table of NIPHP Performance Indicators, 1998 Baseline Survey and 2001 RSDP Evaluation Survey

INDICATOR	1998 Baseline Survey	2001 RSDP Evaluation Survey
Polio3	Х	26.4
Both	X	26.4
(b) Importance of vitamin A		
To prevent night blindness	X	17.7
To increase resistance to infections	X	20.6
To improve child's health	X	45.2
(c) How to respond to childhood diarrhea		
Give homemade ORS	X	57.8
Treat with ORT	X	86.8
Seek medical care/consult a doctor	X	55.0
(d) How to respond to childhood ARI		
Take child to health facility	X	28.7
Consult a doctor	X	71.5
(e) Percent of married women who know the danger signs for pregna	ancy and how to	react
Know danger signs	X	
Tetanus	X	54.1
Obstructed Labor	X	37.0
Retained Placenta	X	35.6
Poor positioning of fetus	X	28.0
Eclampsia	X	27.9
Don't Know	X	9.4
Know to seek medical care	X	99.1
(f) Percent of married women who know the recommended number of TT vaccinations	X	17.2
Percent of women who exclusively breastfeed, by 2 month intervals		
0-1 month	X	54.2
2-3 months	X	39.2
4-5 months	X	28.4
6-7 months	X	11.6
8-9 months	X	5.0
10-11 months	X	2.9
IR 3: Improved quality of services at NIPHP facilities		
Drop-out rates for EPI		
DPT3		35.8
Polio3		12.8
Contraceptive Method Discontinuation Rates		
Oral Contraceptives	X	42.1
IUDs	X	42.8
Injectables	Х	42.1

#### **CHAPTER 1. INTRODUCTION**

#### 1.1 Background on the Rural Service Delivery Partnership

The Rural Service Delivery Partnership (RSDP) is the rural component of the National Integrated Population and Health Program (NIPHP), a USAID-funded, seven-year, US\$230 million project. The purpose of the NIPHP program is to promote the delivery and use of an Essential Service Package (ESP)<sup>1</sup> of family planning and family health services at fixed site clinics in under-served areas of Bangladesh.

The focus of the project on providing an Essential Service Package is a reflection of the realization that efforts to reduce fertility below its current level of 3.3 per woman – a level that has been relatively stable over the past decade - requires a switch from focusing solely on contraceptive use primarily through doorstep delivery to making improvements in maternal and child health, particularly high infant and child mortality rates. Reducing mortality will require addressing its proximate determinants - poor birth spacing, poor maternal and child health and nutrition, and inadequate use of preventive health services - through wider access to the Essential Services Package. (Pritchett 1994; Fiedler and Day 1997). As part of the government's Health and Population Sector Strategy (HPSS), service delivery is shifting from doorstep delivery to provision of a one-stop full-range of essential reproductive and family health services (Ali 1997).

The Rural Service Delivery Partnership extends access to an Essential Service Package through a system of 19 NGOs,<sup>2</sup> providing services in 171 of Bangladesh's 409 rural thanas through a system of roughly 175 static clinics, 7,055 satellite clinics, and 8,820 Depotholders (RSDP Semi-Annual Report 2000). The partnership began in 1997. This report therefore represents a mid-project analysis of the efforts of RSDP to promote use of the Essential Service Package.

#### 1.2 Population

The Rural Service Delivery Partnership covers approximately 2.2 million eligible couples in rural areas of 6 divisions of Bangladesh. Nearly one-third of the program's population are in Dhaka division. A very small percentage are located in Barisal division. For the majority of the report, estimates for Barisal are combined with Khulna division.

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Table 1.1 Distrib	oution of project p	opulation by division
Division	Population	Distribution pop by
	•	Division
Chittagong	320,217	14.4%
Khulna	139,541	6.3%
Dhaka	800,594	35.9%
Rajshahi	526,575	23.6%
Sylhet	417,595	18.7%
Barisal	24,788	1.1%
TOTAL	2,229,310	100.0%

<sup>&</sup>lt;sup>1</sup> Essential Service Package services include services in the following areas: reproductive health (family planning and maternal care), child health (EPI, ARI, CDD), communicable disease control (RTI and STD prevention and treatment, HIV/AIDS), and limited curative care.

<sup>&</sup>lt;sup>2</sup> During the period of the analysis, RSDP consisted of 19 NGOs. In April 2001, BRAC, the largest NGO in RDSP, left the program. For evaluation purposes, however, its program areas were still included in the analysis.

#### 1.3 Objectives of the Survey

The survey has two principal objectives:

- To monitor changes in the USAID performance indicators since the baseline survey in 1998
- To provide data on individual behaviors and health outcomes and to link these data with characteristics of the service supply environment in order to conduct an evaluation of the impact of the RSDP program on the health of the project's catchment area population

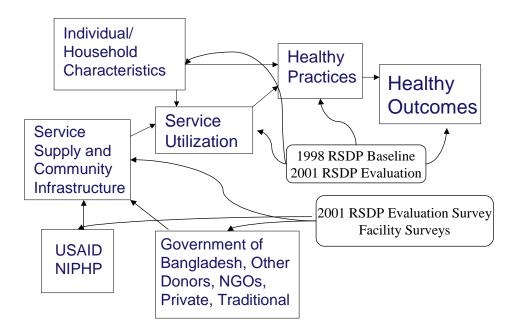
The NIPHP Results Framework Performance Indicators are designed to monitor changes both in health outcomes – the strategic objective – and 5 intermediate behavioral and knowledge areas. These are summarized in Table 1.2. The overall strategic objective of the project is to reduce fertility and to improve family health. The intermediate results include: (IR1) increased use of an Essential Service Package, (IR2) increased knowledge and changed behaviors, (IR3) improved quality of services at RSDP facilities, (IR4) improved management of RSDP service delivery organizations, and (IR5) increased sustainability of RSDP service delivery organizations. Indicators are provided for the strategic objective and each of the intermediate results. In order to collect information on these indicators, information is collected through household and individual questionnaires on health behaviors, knowledge and outcomes.

Toblo	1.2 D.4 NIDLID Decults Framework Mor	sitonino indicatana
	1.2 R4 NIPHP Results Framework Mortoring indicators by Strategic Objective (	
Obj.	Area	Indicators
SO	Reduced fertility rates and improved family health	Total fertility rate; infant and child mortality rates; non-polio acute- flaccid-paralysis rate; prevalence of childhood night blindness; HIV sero-prevalence
IR1	Increased use of an Essential Service Package	Contraceptive use; immunization coverage; vitamin-A; ORT treatment for diarrhea; use of ARI treatment; antenatal care
IR2	Increased knowledge and changed behaviors	Knowledge and awareness of ESP services
IR3	Improved quality of services at NIPHP facilities	Service delivery standards; trained staff; immunization and contraceptive discontinuation rates
IR4	Improved management of NIPHP service delivery organizations	Data for decision-making; financial management; stock-outs
IR5	Increased sustainability of NIPHP service delivery organizations	Cost-recovery

As there are many factors at work in the health sector, monitoring indicators alone are insufficient for assessing the relative contribution of the RSDP program to changes in the health sector. Assessing program impact requires looking at changes in health behaviors and health outcomes, and distinguishing the contribution of the RSDP program to these changes relative to the contribution of other factors that may have led to these changes. As shown in the figure below, many factors can affect service utilization and health practices. At the individual and household levels, wealth, education levels, age, women's autonomy, and attitudes all tend to affect the use of health services and health outcomes. Equally important, of course, are factors on the supply-side – both RSDP and non-RSDP. Regardless of individual or household characteristics, services cannot be used if they are not available or are of such low quality that they are not perceived to be effective in addressing health needs. For this reason, this survey collects data on the facilities and health workers in areas served by the RSDP program and in suitable non-RSDP comparison areas.

This survey is a follow up of a baseline survey conducted in 1998. The 1998 RSDP Baseline Survey collected information on knowledge and use of ESP services for nearly 47,000 women - 2,200 women for each of the 19 NGOs. By examining changes in health knowledge and behaviors from 1998 to 2001 and linking those changes to the presence and intensity of RSDP efforts, the impact of the project in improving the health status of the population can be evaluated.

Figure 1.1 Linking inputs to outcomes for evaluating NIPHP Impact



#### 1.4 Organization of the Survey

The 2001 RSDP Evaluation Survey was conducted in rural areas of Bangladesh serviced by RSDP NGOs. In addition, a sample of rural non-program areas – that is, areas outside of the RSDP NGO program – was drawn. This latter sample was intended to be used as a group for comparison with the program area samples.

#### Sample Design

The 2001 RSDP Evaluation Survey was intended to collect information for only 7 sample domains: the five divisions in which the project operates, 3 the RSDP project as a whole, and a sample of non-project comparison areas. This departs from one of the principal objectives of the 1998 Baseline Survey, which was to collect information and obtain estimates of indicators for each of the 19 NGOs. As a result, the sample size for the 2001 RSDP Evaluation Survey – only 12,747 women in total - was considerably smaller than the 47,000 women sampled in the Baseline Survey.

The 2001 survey employed a nationally representative two-stage cluster sample that was selected from the 1998 Baseline Survey sample. For selecting sample clusters from program areas, the eligible couple population of program areas was classified by division and by NGO. This population by division was used to obtain the number of clusters for each division. The distribution of division populations was used to allocate the number of clusters by NGO for each division.

<sup>&</sup>lt;sup>3</sup> While the project supports NGOs in all 6 divisions, it operates in only a few areas in Barisal division. As a result, Khulna and Barisal divisions were treated as a single domain.

Since one objective of the 2001 RSDP Evaluation was to provide valid estimates for each division, it was necessary to increase the sampling rate for the Khulna division. Thus, the sample was not self-weighted, and weighting factors have been applied to estimate national figures. A total of 400 clusters - a cluster being the area covered by a satellite or static clinic of an RSDP NGO – were drawn. Of the chosen clusters, 41 were selected from Chittagong, 40 from Khulna, 100 from Dhaka, 66 from Rajshahi, 3 from Barisal and 52 from Sylhet division. The remaining 98 clusters were drawn from comparison areas. The selected clusters are in fact a sub-sample of those covered in the 1998 baseline survey. Clusters from comparison areas were taken from areas adjoining RSDP program areas in proportion to population size. Clusters were drawn at random with equal probability.

For every selected cluster from RSDP and comparison areas, 150 to 350 households were listed, proceeding from the northwest corner of the area. Then 35 to 38 households were systematically selected from each cluster, with the expectation that at least 30 eligible women (ever married aged 10 to 49 years) would be found for interview. Ultimately, 9,769 women from RSDP program areas and 3,176 women from comparison areas were interviewed.

#### Implementation of the Study

The 2001 RSDP Evaluation Survey was implemented by Associates for Community and Population Research (ACPR), a Bangladesh research firm located in Dhaka. A four-member research team of ACPR headed by Prof. M. Sekander Hayat Khan was responsible for implementing the study. The other members of the team were A.P.M. Shafiur Rahman, Tauhida Nasrin and Nitai Chakrobarty. MEASURE Evaluation of the Carolina Population Center, University of North Carolina at Chapel Hill provided technical assistance to the project and financial assistance was provided by the United States Agency for International Development (USAID).

#### **Survey Instruments**

Nine instruments were used for the 2001 RSDP Evaluation Survey:

#### Household:

- Household Listing Schedule
- Household Questionnaire
- Women's Questionnaire

Village Questionnaire

Health Facility & Health Worker:

- Hospital Questionnaire
- Health Facility/Static Clinic Questionnaire
- Satellite Clinic Questionnaire
- Depotholder Questionnaire
- Health Worker Questionnaire

The instruments were initially developed by MEASURE Evaluation and were reviewed by USAID/Dhaka and pre-tested by professional staff of ACPR. The questionnaires were developed in English and then translated into and printed in Bangla.

The household listing schedule was used to conduct the household listing operation in each selected cluster area in order to facilitate a systematic selection of the required number of households from a cluster area.

The household questionnaire was used to list all usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including his or her age, sex, and relationship to the head of the household. The main purpose of the household questionnaire was to identify

ever married women aged 10 to 49 years for individual interview. In addition, information was collected about the dwelling itself, such as the source of water, type of toilet facilities, materials used to construct the house, and ownership of various consumer goods.

The women's questionnaire was used to collect relevant information from ever-married women aged 10 to 49 years. These women were asked questions on the following topics:

- Background characteristics (age, current marital status, education, religion, exposure to mass media, etc.)
- Reproductive history
- Knowledge and use of family planning methods
- Pregnancy, postnatal care, and breastfeeding practices
- Immunization and child health care
- Fertility preferences
- Knowledge of existing health services and providers
- Husband's background, respondent's work, and respondent's level of autonomy within the household

The village questionnaire had two principal objectives: (1) to collect information on the communities in which households served by the RSDP program lived and (2) to identify the RSDP and non-RSDP providers of health services in the communities. Specific information was collected on the following areas:

- Global Positioning System (GPS) location of the community
- Availability of basic services in the community (schools, roads, communication, etc.)
- Identification of sources of basic health services, including non-clinic based sources
- Identification and characteristics of health promotion activities in the community (IEC campaigns, community mobilizers etc.)

The facility and health worker questionnaires aimed to collect information on the service supply environment faced by women in RSDP and non-RSDP areas. Different types of questionnaires were used for different types of facilities in order to ensure that collected data were relevant to the type of facility. Health worker questionnaires were used to evaluate the quality of the interaction between clients and service providers. The health facility survey collected information on the following topics:

- Global Positioning System (GPS) location of the clinic
- Availability of basic health services, in particular the essential health service package
- Staffing and staff level of training
- Availability of essential medicines, supplies, and equipment
- Basic infrastructure characteristics
- IEC materials and activities
- Fees

#### **Training and Field Work**

Household listing, village, and facility questionnaires were pre-tested from May 1-10, 2001. Field staff for the survey were recruited in the first week of May, 2001. They were trained at the office of ACPR from May 12-29, 2001. The listing operation, village, and facility surveys were conducted from May 30 to August 12, 2001. Thirteen teams, each consisting of one supervisor and two listers, were engaged for the listing operation and village survey. For the facility survey, another thirteen teams, each consisting of one supervisor and three enumerators, were deployed. Fieldwork was done in five phases.

The listing operation of the 2001 RSDP Evaluation Survey was conducted from May 30 to August 12, 2001. The women's questionnaire was pre-tested from June 1-14, 2001. For the pretest, male and female interviewers were trained at the office of ACPR in Dhaka. After training the teams, interviews were conducted in various RSDP NGO areas under the observation of ACPR's research team members, MEASURE Evaluation, and USAID/Dhaka. Altogether, 27 household and women's questionnaires were completed. Based on the experience in the field and suggestions made by pretest staff, modifications were made in the wording and translations of the questionnaires.

In June 2001, field staff for the main survey were recruited. Recruitment criteria included educational attainment, experience in other surveys, and the ability to spend three weeks in training and at least three months in the field. Training for the main survey was conducted at a rented venue for 24 days from June 10 to July 3, 2001, including two days of field practice. Training was provided in two groups: 9 AM to 1 PM for Group A and 2 PM to 6 PM for group B. Training consisted of lectures on objectives and methodology of the survey, techniques of interviewing, and how to complete the questionnaires. Group discussions and mock interviews between participants were used to gain practice in asking questions. Those whose performance in the training course was satisfactory were finally selected for the fieldwork. Trainees whose performance was considered superior were selected as supervisors.

Fieldwork commenced on June 5, 2001 and was completed on September 19, 2001. Fieldwork for the main survey was carried out by 18 interviewing teams. Each team consisted of one male and one female supervisor, four female interviewers and one field assistant. ACPR also fielded five quality control teams of two people each to monitor the field activities of the teams. In addition, research team members of ACPR monitored the fieldwork by visiting the teams in the field. Moreover, individuals from MEASURE Evaluation and USAID/Dhaka monitored the fieldwork by visiting teams in the field.

#### **Data Processing**

Data processing commenced in mid-July 2001 and was completed by mid-November, 2001. Data processing was done at the ACPR offices in Dhaka. All the filled-in questionnaires for the survey were returned to the data processing cell of ACPR. The data processing operations consisted of office editing, data entry and editing inconsistencies found by the computer programs. The data were processed on 10 microcomputers working in double shifts, carried out by 10 data entry operators and 2 data entry supervisors. To minimize error, a double data entry procedure was followed. The data entry and editing programs were written in the software program ISSA (Integrated System for Survey Analysis).

#### **Response Rates**

Table 1.3 shows non-response rates for the survey. A total of 10,936 households in RSDP areas and a total of 3,550 households in non-RSDP areas were selected for the sample. Of this sample, 10,146 RSDP and 3,299 non-RSDP households were successfully interviewed. The reasons for the shortfall were that the dwellings were either vacant or the inhabitants were absent for an extended period at the time they were visited by the interviewing teams. Of the 13,588 households occupied, 99 percent were successfully interviewed. In these households, 14,332 women were identified as eligible for the individual interviews (i.e. ever-married women aged 10 to 49 years), and interviews were completed for 12,747 or 89 percent of them.

The main reason for non-response among the eligible women was the failure to find them at home despite repeated visits to the households. The non-response rate was low.

Table 1.3 Results of the household and individual interviews

Number of households, number of eligible women interviews, and response rates according to residence

Result	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Total Non- RSDP
Household interviews							
Households selected	1465	1565	3615	2401	1890	10936	3550
Households occupied	1386	1478	3355	2254	1791	10264	3324
Households interviewed	1359	1466	3316	2224	1781	10146	3299
Household response rate	98.1	99.2	98.8	98.7	99.4	98.9	99.2
Individual interviews: women Number of eligible women Number of eligible women Interviewed	1481 1230	1551 1392	3514 3156	2310 2108	1980 1739	10836 9625	3496 3122
Eligible woman response rate	83.1	89.7	89.8	91.3	87.8	88.8	89.3

#### **Selection of Facilities**

A detailed protocol was employed for collecting the community, facility, and satellite clinic information. During household listing visits to communities, listing teams identified 3-6 community respondents who could be interviewed in a group for the village/mohalla questionnaire. It was intended that the community respondents include at least one educator, at least one female community leader, and several local government officials.

During the village/mohalla interview, respondents identified the different sources of health services known to be available in the area and obtained approximate distances from the communities to the health service sources. After the village/mohalla questionnaire was completed, a list of facilities form was completed for the cluster. The facility survey teams in the cluster then visited the RSDP static clinic in the cluster and asked the facility manager to review the map of the Thana depicting the location of the static clinic and the catchment area. In general, this map also showed other health facilities in the Thana. The survey team compared the list of facilities identified by the community respondents to the facilities presented in the Thana map to identify facilities that were not mentioned by the community respondents but that were located in the Thana. The list of facilities form was completed with that additional information. A list of facilities form was prepared for every cluster.

The procedure to identify the relevant facilities and the selection for the facility survey varied according to the type of facility:

For Hospitals, the closest was identified. If it was within 30 kilometers, it was visited.

Each *Thana Health Complex* in a thana was visited regardless of distance. If there was a closer Thana Health Complex located in a different thana, it was also visited, if mentioned in the Village/Mohalla questionnaire.

For Maternal and Child Welfare Centers (MCWCs), and Family Welfare Centers (FWCs), the closest of each type was identified. If the closest facility was located in a different mohalla than the cluster, then the facility in the cluster's mohalla was also identified. A maximum of two facilities for each type could be identified and selected for the facility survey visit. For FWCs, the closest one regardless of the distance to the cluster was visited. For MCWC, the closest one was visited if distance was less than 10 km.

One RSDP static clinic was identified per cluster (in intervention areas) and visited regardless of distance.

For *Private clinics, Other NGO clinics, GOB Community Clinics, and Rural Dispensaries*, all those known to be available to the people in the cluster (up to a maximum of four for each type) were obtained, including names and approximate distances. The nearest three of each type were visited, unless they were beyond 10 kilometers.

For Satellite Clinics (RSDP, other NGO or Government), all satellite clinics known to be available or that provide services in the cluster were identified with their names and approximate distances. All satellite clinics located within 1 mile from the cluster were selected as those to be visited by facility survey teams. If none were located within 1 mile, the closest of each type (NIPHP, other NGO or Government) was visited regardless of distance.

For *Pharmacies, private allopathic doctors, homeopathic doctors and traditional doctors/village practitioners/ayurvedic/unani doctors,* there was a set of questions in the village/mohalla questionnaire to identify their presence and number in the surrounding area. The distance to the closest one of each type was recorded. However, these were not selected for the facility survey visit.

For FWAs, there was a set of questions to identify their presence in the cluster, and the nearest to the cluster was visited.

Table 1.4 provides a summary of the selection strategy.

Satellite Clinics: Because the satellite clinic sessions occurred only once per week or once per month, it was unlikely that the timing of the visit by survey teams corresponded to the day on which a particular satellite clinic occurs. However, facility survey teams went to the satellite clinic locations and collected information on the physical appearance of the satellite clinic and took GPS coordinates. In most cases, the remainder of the satellite clinic questionnaire was completed elsewhere with the actual satellite clinic worker, either at the static clinic with which the worker is affiliated or the worker's home.

Health Workers: Health workers were selected for interview at FWCs, MCWCs, NGO clinics, private clinics, RSDP static clinics, community clinics, and rural dispensaries. Only those workers involved in providing ESP services were interviewed. In facilities with fewer than 5 ESP workers, all ESP workers were identified and given the Health Worker Questionnaire. For facilities with 5 or more ESP workers, one of each staff type was identified and given the Health Worker Questionnaire. The lowest level of health worker to be interviewed was the Health Assistant. Clinic Aides were not interviewed.

#### Table 1.4 Selection of facilities for interview

Criteria for selection of health facility types to be interviewed, survey instrument used, and selection of health staff for interview

	Sources	Frequency	Identified in Community Questionnaire	Number Selected for Interview	Questionnaire	Staff for WORKER Questionnaire			
						Number In post	Number selected for Interview		
01	Hospitals	1/district	1-2	closest 1-2, within 30 km	HOSPITAL		0		
02	Thana Health Complexes	1/thana	1-2	1-2, at least 1	FACILITY		0		
03	FWCs	1/union	1-2	1-2, at least 1	FACILITY	1-2	All		
04	MCWCs	1-2/district	1-2	1-2, at least 1	FACILITY	2-3	All		
05	NIPHP Static Clinics	1/thana	1-2	1-2, at least 1	FACILITY	4-5	*		
06	Private Clinics	several	All, up to 4	Nearest 3, at least 1 if < 10 kms.	FACILITY	4-5	*		
07	Other NGO Clinics	several	All, up to 4	Nearest 3, at least 1 if < 10 kms.	FACILITY	4-5	*		
08	Community Clinics	several	All, up to 4	Nearest 3, at least 1 if < 10 kms.	FACILITY	1-2	All		
09	Rural Dispensaries	several	All, up to 4	Nearest 3, at least 1 if < 10 kms.	FACILITY	1-2			
10	Satellite Clinics	several	All	All if < 1 mile, at least 1 per type	SATELLITE	1-2	All		
11	Depotholders	1/village	All	All if < 1 mile, at least 1	DEPOT- HOLDER	1	1 per village		
12	FWV/FWA	several	Special Question	Closest, at least 1 per cluster	WORKER	1	1		
	Pharmacies	several	Special Question	No					
	Doctors' Offices (allopathic MBBS)	several	Special Question	No					
	Village Practitioners (homeopathic & ayurvedic/unani)	several	Special Question	No					

<sup>\*</sup> If number of ESP staff > 5, selected sample of one per type If number of ESP staff <= 4, all interviewed.

## CHAPTER 2. HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

In the following substantive chapters of this report, women's status, nuptiality, fertility, contraceptive behavior, mortality, and health of children, are viewed across different subgroups of the population. One focus of this chapter is to lay out a descriptive assessment of the environment where women and children live. This is done by showing general characteristics of the population such as age-sex structure, literacy and education, household arrangements (headship, size), and housing facilities (water supply, sanitation, electricity, etc.). A distinction is made between urban and rural settings where many of these indicators usually differ.

Besides providing a better understanding of many social and demographic phenomena discussed in the following chapters, this general description of the studied population is useful for assessing advances in the status and empowerment of women and in economic and social development.

The RSDP household questionnaire was used to collect information on the demographic and social characteristics of the de facto household population (those who spent the night before the interview in the household). A household is defined as a person or group of people who live together and share food.

#### 2.1 Age and Sex Composition

The distributions of household population in RSDP and non-RSDP comparison areas, by five-year age groups, sex and division are shown in table 2.1A and table 2.1B. The population is equally divided into males (49.8 % in RSDP and 49.9 % in non-RSDP) and females (50.2 % in RSDP and 50.1 % in non-RSDP). There are more people in the younger age groups than in the older age groups of each sex and this is because of high levels of fertility in the past. About forty percent of the population is below 15 years of age and about five percent is of age 65 or older. The RSDP and non-RSDP age distribution are similar.

Overall, the number of women slightly exceeds the number of men. This pattern is especially pronounced at age 15-19. The ratio of men to women at age 65 and above is significantly higher and this may be due to the unusual tendency of over reporting of ages of men and/or underreporting of ages of women at that level of age.

Table 2.1A Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age group, according to sex and residence, by division and RSDP/non-RSDP

	Cl	hittagon	g	Khu	ılna/Bar	isal		Dhaka			Rajshahi			Sylhet			RSDP		N	on-RSD	Р
Characteristic	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4 5-9	14.7 15.9	12.6 13.5	13.6 14.7	11.0 13.1	12.1 11.9	11.5 12.5	13.4 14.3	13.3 13.7	13.4 14.0	11.8 13.2	11.8 14.1	11.8 13.6	14.5 14.2	13.8 13.0	14.1 13.6	13.3 14.2	12.9 13.5	13.1 13.8	13.0 13.4	11.8 13.1	12.4 13.2
10-14	14.7	14.0	14.7	14.6	14.2	14.4	13.4	13.7	13.3	13.1	13.1	13.1	12.7	13.0	12.9	13.4	13.4	13.4	13.4	13.1	13.4
15-19	10.9	12.9	11.9	11.5	13.0	12.2	10.0	12.3	11.2	10.9	12.0	11.4	10.0	12.4	11.2	10.4	12.4	11.4	11.1	12.7	11.9
20-24	6.5	9.1	7.9	7.1	8.5	7.8	6.7	8.7	7.7	6.4	9.2	7.8	6.9	9.7	8.3	6.7	9.1	7.9	7.1	9.4	8.3
25-29	5.4	7.0	6.2	6.8	8.3	7.6	6.4	7.9	7.1	7.0	8.9	7.9	6.9	7.2	7.1	6.5	7.8	7.2	7.1	7.7	7.4
30-34	5.4	6.0	5.7	6.4	6.6	6.5	6.3	6.8	6.5	7.6	7.3	7.4	5.8	6.1	5.9	6.4	6.6	6.5	6.3	6.4	6.4
35-39	5.1	5.0	5.1	6.7	6.3	6.5	6.1	5.8	5.9	7.1	6.2	6.6		5.6	6.0	6.3	5.8	6.0	5.9	5.7	5.8
40-44	4.2 2.9	3.6 2.8	3.9 2.9	5.3	4.3 2.9	4.8 3.8	5.9	4.4 3.1	5.1 3.8	5.9	4.1 2.8	5.0 3.6	5.5 3.7	3.9 2.2	4.7 2.9	5.5	4.1 2.8	4.8 3.4	5.2 3.8	4.5 3.2	4.9 3.5
45-49 50-54	2.9	2.5	2.9	4.6 3.4	1.9	2.7	4.5 3.2	2.1	2.7	4.4 3.4	2.4	2.9	2.6	2.2	2.5	4.1 3.0	2.8	2.7	3.3	2.5	3.3 2.9
55-59	1.6	2.9	2.3	1.8	3.1	2.7	2.0	2.1	2.7	2.1	2.4	2.4	1.3	2.3	2.0	1.8	2.3	2.7	2.3	3.0	2.6
60-64	2.8	2.9	2.9	2.4	2.8	2.6	2.5	2.2	2.4	2.5	2.3	2.4	3.2	3.3	3.2	2.7	2.6	2.6	2.5	2.6	2.6
65-69	1.9	1.4	1.6	1.3	1.1	1.2	1.5	1.4	1.4	1.3	1.1	1.2	1.7	1.5	1.6	1.5	1.3	1.4	1.5	1.2	1.4
70-74	2.6	1.7	2.1	2.1	1.4	1.8	1.9	1.4	1.7	1.7	1.0	1.4	2.4	1.6	2.0	2.1	1.4	1.8	1.9	1.5	1.7
75-79	0.7	0.6	0.6	0.8	0.4	0.6	0.7	0.3	0.5	0.6	0.2	0.4	0.9	0.3	0.6	0.7	0.3	0.5	0.7	0.6	0.6
80 +	2.0	1.3	1.7	1.2	1.0	1.1	1.2	0.8	1.0	1.0	0.6	0.8	1.3	1.2	1.2	1.3	0.9	1.1	1.2	0.8	1.0
Missing/DK	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	01	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Number	100 3,820	100 4,093	100 7,913	100 1,888	100 1,838	100 3,725	100 9,045	100 8,901	100 17,946	100 5,566	100 5,429	100 10,994	100 5,534	100 5,829	100 11,363	100 25,852	100 26,089	100 51,942	100 8,453	100 8,476	100 16,929
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Table 2.1B Population pyramid

Percent distribution of the de facto household population by five-year age group, according to sex, by division and RSDP and non-RSDP areas

	(	Chittagon	g	Kh	ulna/Bari	sal		Dhaka			Rajshahi			Sylhet			RSDP		N	Non-RSD	Р
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Age Group																					
0-4	7.1	6.5	13.6	5.6	6.0	11.5	6.8	6.6	13.4	6.0	5.8	11.8	7.0	7.1	14.1	6.6	6.5	13.1	6.5	5.9	12.4
5-9	7.7	7.0	14.7	6.7	5.9	12.5	7.2	6.8	14.0	6.7	6.9	13.6	6.9	6.7	13.6	7.1	6.8	13.8	6.7	6.5	13.2
10-14	7.1	7.2	14.3	7.4	7.0	14.4	6.7	6.6	13.3	6.6	6.5	13.1	6.2	6.7	12.9	6.7	6.7	13.4	6.8	6.6	13.4
15-19	5.2	6.7	11.9	5.8	6.4	12.2	5.1	6.1	11.2	5.5	5.9	11.4	4.9	6.4	11.2	5.2	6.2	11.4	5.5	6.3	11.9
20-24	3.2	4.7	7.9	3.6	4.2	7.8	3.4	4.3	7.7	3.2	4.6	7.8	3.4	5.0	8.3	3.3	4.6	7.9	3.6	4.7	8.3
25-29	2.6	3.6	6.2	3.4	4.1	7.6	3.2	3.9	7.1	3.5	4.4	7.9	3.4	3.7	7.1	3.2	3.9	7.2	3.6	3.8	7.4
30-34	2.6	3.1	5.7	3.2	3.2	6.5	3.2	3.4	6.5	3.8	3.6	7.4	2.8	3.1	5.9	3.2	3.3	6.5	3.1	3.2	6.4
35-39	2.5	2.6	5.1	3.4	3.1	6.5	3.0	2.9	5.9	3.6	3.0	6.6	3.1	2.9	6.0	3.1	2.9	6.0	2.9	2.9	5.8
40-44	2.0	1.9	3.9	2.7	2.1	4.8	3.0	2.2	5.1	3.0	2.0	5.0	2.7	2.0	4.7	2.7	2.1	4.8	2.6	2.2	4.9
45-49	1.4	1.5	2.9	2.3	1.4	3.8	2.3	1.5	3.8	2.2	1.4	3.6	1.8	1.1	2.9	2.0	1.4	3.4	1.9	1.6	3.5
50-54	1.2	1.3	2.6	1.7	1.0	2.7	1.6	1.1	2.7	1.7	1.2	2.9	1.3	1.2	2.5	1.5	1.2	2.7	1.6	1.3	2.9
55-59	0.8	1.5	2.3	0.9	1.6	2.5	1.0	1.2	2.2	1.1	1.3	2.4	0.7	1.4	2.0	0.9	1.4	2.3	1.1	1.5	2.6
60-64	1.4	1.5	2.9	1.2	1.4	2.6	1.3	1.1	2.4	1.3	1.1	2.4	1.5	1.7	3.2	1.3	1.3	2.6	1.3	1.3	2.6
65-69	0.9	0.7	1.6	0.7	0.5	1.2	0.8	0.7	1.4	0.7	0.6	1.2	0.8	0.8	1.6	0.8	0.7	1.4	0.8	0.6	1.4
70-74	1.2	0.9	2.1	1.1	0.7	1.8	1.0	0.7	1.7	0.9	0.5	1.4	1.2	0.8	2.0	1.0	0.7	1.8	1.0	0.7	1.7
75-79	0.3	0.3	0.6	0.4	0.2	0.6	0.3	0.2	0.5	0.3	0.1	0.4	0.4	0.2	0.6	0.4	0.2	0.5	0.3	0.3	0.6
80 +	1.0	0.7	1.7	0.6	0.5	1.1	0.6	0.4	1.0	0.5	0.3	0.8	0.6	0.6	1.2	0.6	0.5	1.1	0.6	0.4	1.0
Missing /DK	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
Total	48.3	51.7	100.0	50.7	49.3	100.0	50.4	49.6	100.0	50.6	49.4	100.0	48.7	51.3	100.0	49.8	50.2	100.0	49.9	50.1	100.0
Number	3,820	4,093	7,913	1,888	1,838	3,725	9,045	8,901	17,946	5,566	5,429	10,994	5,534	5,829	11,363	25,852	26,089	51,942	8,453	8,476	16,929

#### 2.2 Household Composition

The distribution of households by sex of head of household and household size according to RSDP and non-RSDP area of residence is given in table 2.2. The table is based on dejure members, i.e. usual residents. Table 2.2 shows that a small minority of households in Bangladesh are headed by females. About 9.6 percent of RSDP, and 11.2 percent of non-RSDP households were headed by females, with the remaining percentage headed by males. Female-headed households are equally uncommon in all the divisions except Chittagong division. The results in Chittagong could be explained because a higher proportion of males of Chittagong division live away from usual residence either for business or foreign employment.

The average household size is 5.2, with no variation between RSDP and non-RSDP areas. This figure compares exactly with the *Bangladesh Demographic and Health Survey*, 1999-2000 and the RSDP baseline survey figures. The mean household size is higher in Sylhet and Chittagong divisions compared to other divisions. Single-person households are rare in RSDP and non-RSDP domains.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and household size, by division and RSDP/ non-RSDP

Charactereistics	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non- RSDP
Sex of HH Head							
Male	82.5	93.9	91.2	93.4	89.6	90.4	88.8
Female	17.5	6.1	8.8	6.6	10.4	9.6	11.2
TOTAL	100	100	100	100	100	100	100
Number of usual							
members							
1	0.9	1.3	1.4	1.3	0.8	1.2	1.7
2 3	4.4	5.4	7.3	8.3	5.8	6.7	6.1
	9.9	17.0	14.5	17.6	10.4	14.0	14.3
4 5	18.2	22.8	21.9	25.3	15.6	21.1	21.0
5	18.7	21.8	19.8	21.2	17.4	19.7	19.4
6	17.1	15.0	16.0	13.0	15.2	15.2	14.6
7	11.3	6.9	8.9	6.7	13.2	9.4	9.9
8	9.6	3.8	4.5	3.0	8.0	5.5	5.4
9+	9.9	5.9	5.7	3.6	13.7	7.3	7.5
Total	100	100	100	100	100	100	100
Mean size	5.7	4.9	5	4.6	6	5.2	5.2

Note: Table is based on de jure members, i.e., usual residents.

#### 2.3 Housing Characteristics

Table 2.3 shows that tube wells are the major source of drinking water in RSDP and non-RSDP areas. 93.8 percent of RSDP and 94.7 percent of non-RSDP households obtain their drinking water from tube-wells. Only a small percentage of both RSDP (5 percent) and non-RSDP (4 percent) households depend on surface water such as surface wells, ponds, and rivers/streams for drinking purposes. Piped water is rare in both RSDP and non-RSP rural areas. Households use of boiled drinking water is also rare in rural areas, with close to 99 percent of both RSDP and non-RSDP households drinking water without boiling. Tube wells (at 68.5 percent for RSDP and 66.6 percent for non-RSDP) and pond/tank/lake (at 26.2 percent for RSDP and 30.2 percent for non-RSDP) are the two major sources of water for dishwashing.

About 74 percent of RSDP and 79 percent of non-RSDP households have some type of toilet facility; however, only 50.1 percent of both RSDP and non-RSDP households have hygienic toilets (septic tank/modern toilets, water-sealed/slab latrines, and pit toilets). Sanitation facilities vary little between overall RSDP and non-RSDP areas, but wide variation exists among the divisions. About 48 percent of Rajshahi and 11 percent of Chittagong divisions' households do not have fixed toilet facilities. About 40 percent of both RSDP and non-RSDP households with some kind of toilet facility share the facility with other households.

Table 2.3 Housing characteristics Percent distribution of households	by housing cha-	racteristics	by division	and RSDP/r	on-RSDP		
Background Characteristics	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non- RSDP
Water Source for Dishwashing Piped inside dwelling Piped outside dwelling Tube well Surface/other well Pond/tank/lake River/stream Rainwater Total	2.1 0.1 40.2 1.8 53.5 2.4 0.0 100.0	0.1 0.0 70.2 0.3 29.1 0.3 0.1 100.0	0.0 0.1 80.0 1.8 15.2 3.0 0.0 100.0	0.0 0.0 88.6 3.0 7.9 0.4 0.0 100.0	0.2 0.1 41.9 4.6 48.8 4.5 0.0 100.0	0.3 0.1 68.5 2.5 26.2 2.4 0.0 100.0	0.3 0.0 66.6 2.0 30.2 0.9 0.0 100.0
Source of Drinking Water Piped inside dwelling Piped outside dwelling Tube well Surface/other well Pond/tank/lake River/stream Rainwater Total	3.8 0.2 91.2 1.6 2.9 0.3 0.0 100.0	0.1 0.1 85.9 0.2 8.0 0.3 5.4 100.0	0.0 0.1 98.2 0.7 0.7 0.4 0.0 100.0	0.0 0.2 97.5 2.0 0.3 0.0 0.0	0.2 0.1 85.9 3.0 7.8 2.8 0.2 100.0	0.6 0.1 93.8 1.5 2.8 0.7 0.4 100.0	0.5 0.1 94.7 1.2 2.7 0.1 0.7 100.0
Boil Drinking Water Yes No Total	1.8 98.2 100.0	2.8 97.2 100.0	1.0 99.0 100.0	0.8 99.2 100.0	3.7 96.3 100.0	1.7 98.7 100.0	1.3 98.7 100.0
Type of Toilet Facility Septic tank/modern toilet Water sealed/slab Latrine Pit latrine Open latrine Hanging latrine No facility/ bush/field Total	2.4 9.5 39.4 28.8 9.1 10.8 100.0	2.6 12.4 39.0 22.8 5.6 17.6 100.0	0.5 7.7 29.2 29.1 7.3 26.1 100.0	0.9 8.6 26.7 13.2 2.9 47.7 100.0	4.5 10.4 32.1 34.0 5.7 13.3 100.0	1.8 9.0 31.3 25.8 6.1 26.0 100.0	2.0 10.9 37.2 23.3 5.7 21.0 100.0
Share toilet facility with other households Yes No Total Number	42.6 57.4 100.0 1,412	34.8 65.2 100.0 759	44.4 55.6 100.0 3,628	40.3 59.7 100.0 2,413	34.0 66.0 100.0 1,934	40.3 59.7 100.0 10,146	39.5 60.5 10.0 3,299

### 2.4 Housing Characteristics and Possession of Durable Goods

Table 2.4 presents data on housing characteristics and possession of durable goods. It shows that rudimentary roof is the most common, accounting for 79.7 percent of RSDP and 85.5 percent of non-RSDP household roofs. Households by division and RSDP and non-RSDP areas vary in the use of other types of roof. In RSDP areas, 19 percent of households live in dwellings with natural roofs (kacha [bamboo/thatch]), while in non-RSDP areas the corresponding figure is 12.5 percent.

67 percent of RSDP and 59.8 percent of non-RSDP households live in dwellings with walls made of natural materials such as jute sticks, bamboo or mud. 24.3 percent of RSDP and 29.6 percent of non-RSDP households live in houses made with tin walls, and 7.8 percent of RSDP and 9.4 percent of non-RSDP households live in houses with brick/cement walls.

The most commonly used floor material is earth/bamboo (95.3 RSDP and 92.0 non-RSDP), followed by cement/concrete (4.7 RSDP and 6.7 non-RSDP). Variation in floor materials by division, RSDP and non-RSDP areas is not significant.

Ownership of land is an indicator of a household's socio-economic level. A significant percentage of Bangladesh's population are landless farmers. Table 2.4 shows that 93.1 percent of RSDP and 91.6 percent of non-RSDP households own homestead land. The situation is a little better in RSDP areas than non-RSDP areas. 50.3 percent of RSDP and 47.5 percent of non-RSDP households own land other than homestead land. Variations in the ownership of any other land among the divisions and between RSDP and non-RSDP areas are not very wide. Close to 50 percent of both RSDP and non-RSDP households have no land other than homestead land, and only 4.5 percent of RSDP and 3.6 of non-RSDP households have 5 or more acres of land.

There are significant differences in access to electricity between RSDP and non-RSDP among the divisions; 29.8 percent of non-RSDP households have electricity compared with 19.2 percent of RSDP households. Access to electricity is greatest in Chittagong division (40 percent) and least in Rajshahi division (11 percent).

Possession of household durable goods is not common in Bangladesh, since many families cannot afford them. Table 2.4 shows that 29.3 percent of RSDP and 34.2 percent of non-RSDP households own an Almirah, 58.0 percent of RSDP and 62.7 percent of non-RSDP households own a table or chair, 50.7 percent of RSDP and 57.1 percent of non-RSDP households own a watch or clock. Similarly, 18.8 percent of RSDP and 18.5 percent of non-RSDP households own a bicycle, 0.8 percent of RSDP and 1.5 percent of non-RSDP households own a motorcycle, 2.4 percent of RSDP and 2.7 percent of non-RSDP households own a sewing machine and less than 1 percent of both RSDP and non-RSDP households own a telephone (table 2.4). More non-RSDP households possess every durable good asked about except bicycles, which reflects, among other things, the relative better economic conditions in non-RSDP areas.

<u>Table 2.4 Housing characteristics</u>

Percent distribution of households by housing characteristics, according to residence, RSDP and non-RSDP areas

Background Characteristic	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non- RSDP
Main material of the roof							
Natural roof	12.4	22.5	16.1	25.6	19.3	18.9	12.5
Rudimentary roof	85.2	74.7	83.3	73.4	78.5	79.7	85.5
Finished roof	2.3	2.8	0.6	1.0	2.2	1.4	1.9
Other	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Main material of the walls	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Natural walls	52.1	67.2	59.2	80.6	75.5	67.0	59.8
Rudimentary walls	0.4	7.4	0.5	0.1	0.4	07.0	1.2
Brick/cement	8.5	12.5	3.7	5.5	15.9	7.8	9.4
Tin	39.0	12.5	36.5	13.8	8.2	24.3	29.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Main material of floor	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Earth/bamboo (katcha)	94.6	93.6	96.4	96.8	92.2	95.3	92.0
Wood	0.0	0.0	0.2	0.0	0.0	0.1	1.4
Cement/concrete	5.4	6.4	3.4	3.2	7.8	4.7	6.7
Household owns homestead	3.4	0.4	3.4	3.2	7.0	4.7	0.7
Yes	95.2	92.3	92.7	92.5	93.4	93.1	91.6
No	4.8	7.7	7.3	7.5	6.6	6.9	8.4
Household owns any other land	4.0	7.7	1.3	7.3	0.0	0.9	0.4
Yes	49.3	49.3	51.5	56.3	41.7	50.3	47.5
No	50.7	50.7	48.5	43.7	58.3	30.3 49.7	52.5
Amount of land owned	30.7	30.7	46.3	43.7	36.3	49.7	32.3
No land	50.7	50.7	48.5	43.7	58.3	49.7	52.5
<50 decimals	30.7 17.4	12.5	46.5 14.5	16.3	8.6	14.1	15.1
50-99 decimals	9.1	11.1	14.3	13.9	10.5	11.4	9.6
1.0 acres – 1.99 acres	11.3	10.7	11.1	10.0	8.5	10.4	10.0
2,00 acres – 4.99 acres	8.6	10.7	9.3	11.2	9.7	9.8	9.1
2,00 acres – 4.99 acres 5+ acres	8.6 2.5	4.5	9.3 5.2	4.6	9.7 4.3	9.8 4.5	3.6
	2.5 0.4	4.5 0.1	0.1	0.3	0.0	0.2	0.2
DK/missing	0.4	0.1	0.1	0.5	0.0	0.2	0.2
Total	1,412	759	3,628	2,413	1,934	10,146	3,299

2.4 Housing characteristics (continued)

Percent distribution of households by housing characteristics, according to residence, by division and RSDP and non-RSDP areas

				Domains			
Background Characteristic	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Electricity							
Yes	40.3	12.7	16.4	11.2	21.5	19.2	29.8
No	59.7	87.3	83.6	88.8	78.5	80.8	70.2
Almirah		07.10	02.0		, 0.0	00.0	
Yes	50.1	18.8	25.2	21.6	35.5	29.3	34.2
No	49.9	81.2	74.8	78.4	64.5	70.7	65.8
Table or chair	77.7	01.2	74.0	70.4	04.5	70.7	03.0
Yes	63.6	57.8	49.7	65.6	60.0	58.0	62.7
No	36.4	42.2	50.3	34.4	40.0	42.0	37.3
Bench	30.4	42.2	30.3	34.4	40.0	42.0	37.3
Yes	13.5	16.0	15.9	21.4	20.7	17.8	19.7
No	86.5	84.0	84.1	78.6	79.3	82.2	80.3
	80.5	84.0	84.1	/8.0	79.3	82.2	80.3
Watch or clock	62.5	50.2	47.0	165	52.5	50.7	57.1
Yes	63.5	50.2	47.2	46.5	53.5	50.7	57.1
No	36.5	49.8	52.8	53.5	46.5	49.3	42.9
Cot or bed	0.4.0	02.0	07.0	0.50	0.0	0.5.4	00.5
Yes	84.9	83.8	87.2	87.9	83.8	86.1	88.5
No	15.1	16.2	12.8	12.1	16.2	13.9	11.5
Radio							
Yes	33.3	31.9	24.0	22.2	26.3	25.9	31.4
No	66.7	68.1	76.0	77.8	73.7	74.1	68.6
Television							
Yes	13.0	9.5	9.7	7.5	11.7	10.0	14.7
No	87.0	90.5	90.3	92.5	88.3	90.0	85.3
Bicycle							
Yes	11.6	30.6	15.2	30.4	11.6	18.8	18.5
No	88.4	69.4	84.8	69.6	88.4	81.2	81.5
Motorcycle			_				
Yes	.3	.9	.5	1.1	1.5	0.8	1.5
No	99.7	99.1	99.5	98.1	98.5	99.2	98.5
Sewing Machine	2.0	2.0	1.7	2.6	2.4	2.4	2.7
Yes	3.0	2.8	1.7	2.8	2.4	2.4	2.7
No Talanhana	97.0	97.2	98.3	97.2	97.6	97.6	97.3
Telephone Yes	.2	.1	.5	.3	1.0	.5	.4
No	98.8	.1 99.9	.5 99.5	99.7	99.0	.5 99.5	99.6
INU	70.0	77.7	77.3	77./	77.U	77.3	77.0
Number	1,412	759	3,628	2,413	1,934	10,146	3,299

#### 2.5 Socioeconomic Status

Women and households in the 2001 RSDP Evaluation Survey have been categorized into different socioeconomic levels using an index of household assets. The use of asset information is utilized here in the absence of information on household expenditures and household income. Previous work has demonstrated the effectiveness of such measures of socioeconomic status relative to alternative income and expenditure groupings, particularly when faced with difficulties of imputing household production of own consumption goods in agrarian societies (Filmer and Pritchett, 1998).

The main assets for which information was collected in the survey include presence of electricity, ownership of items such as beds, radios, televisions, chairs/tables, almirahs, watches/clocks, and bicycles, type of water supply, type of toilet, and materials of dwelling roofs, walls, and floors. The index is constructed using the method of principal components, which assigns each asset a factor score. The total factor score for a household is the sum of the factor scores for each asset owned by the household. Households are then categorized into quintiles based on their total asset score.

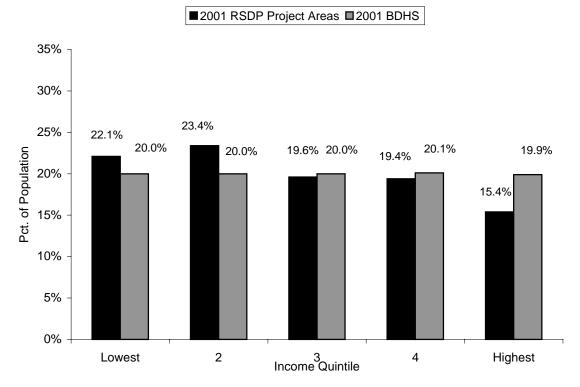
This method is used to overcome the absence of other measures of household income and wealth and the problems of aggregating different forms of income, particularly the value of household agricultural production. The methodology has been applied to the 1996 Bangladesh Demographic and Health Survey (BDHS) by Gwatkin et.al. (2000).

MEASURE *Evaluation* applied the same methodology to the BDHS 1999-2000. From these calculations, asset factor scores were calculated separately for urban and rural areas of the country for each factor in the index. These factor scores were then applied to the household assets in both the 2001 UFHP Evaluation Survey and the 2001 RSDP Evaluation Survey. Such calculations could not be performed for the 1998 RSDP Baseline Survey since that survey collected information only on a very reduced number of household assets.

#### **Basic Characteristics**

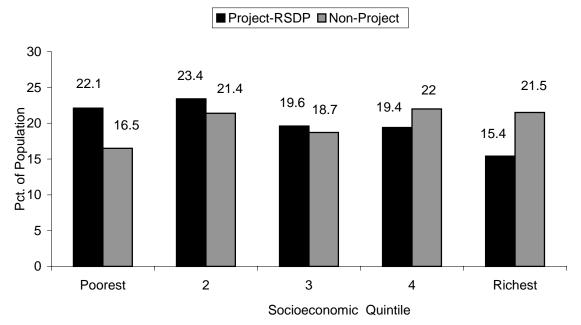
The population in areas served by the RSDP project is slightly poorer than the rural Bangladesh population as a whole and than the non-project population in nearby comparison areas. The distribution of the RSDP project area population is skewed slightly towards the lower asset quintiles relative to the rural population in the 1999-2000 BDHS. Approximately 22 percent of the rural project population are in the lowest asset quintile as compared with exactly 20 percent in the BDHS 1999-2000. Approximately 45 percent of RSDP populations are in the lowest two quintiles, as compared with 40 percent of the Bangladesh rural population. (Figure 2.1).

Figure 2.1 Distribution of Rural Populations by Asset Quintiles, BDHS 1999-2000 and 2001 RSDP Project Areas



The rural population in the 2001 RSDP project areas also tend to be poorer than the population in the 2001 non-project areas (Figure 2.2). Approximately 17 percent of the population in non-project areas are in the lowest asset quintile as compared with 22 percent of the population in the project areas. Approximately 44 percent of the non-project population are in the two highest quintiles as compared with 35 percent of the project population.

Figure 2.2 Distribution of RSDP Project and Non-Project Populations by Asset Quintiles, 2001 RSDP Evaluation Survey



Barisal is the poorest of the divisions served by the RSDP project, though only a small number of women in the sample are from Barisal (Table 2.5). Approximately 51 percent of women in Barisal are in the lowest asset quintile. Rajshahi is the next poorest division, with approximately one-quarter of women in the lowest asset quintile. Chittagong, on the other hand, appears to be the wealthiest division with just over 50 percent of the population in the upper two asset quintiles. The socioeconomic status distribution by division in non-RSDP areas is appears similar.

Table 2.5 Socioeconomic Status

Percent distribution of households by quintile and division, RSDP and non-RSDP areas

Asset		<u> </u>	Div	ision			
Quintile	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Sylhet	Total
RSDP							
Poorest	51.1	15.5	22.0	17.5	25.4	23.3	22.1
2	12.8	16.4	24.7	26.0	25.4	23.6	23.4
3	12.8	17.1	20.4	20.6	22.0	17.1	19.6
4	17.0	27.6	18.6	20.0	17.3	17.4	19.4
Richest	6.4	23.4	14.3	16.0	9.9	18.6	15.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Non-RSDP							
Poorest	31.6	11.9	11.5	15.8	22.6	20.1	16.5
2	21.5	13.9	19.1	26.3	29.4	18.7	21.4
3	13.6	13.9	20.6	18.5	20.1	18.4	18.7
4	21.5	28.4	24.3	24.8	16.2	17.3	22.0
Richest	11.9	32.0	24.6	14.6	11.8	25.4	21.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

## CHAPTER 3. WOMEN'S CHARACTERISTICS AND STATUS

This chapter provides background on the situation of women of reproductive age in the RSDP and non-RSDP areas.

### 3.1 General Characteristics

Table 3.1 shows the distribution of women aged 10-49 by selected background characteristics. To assess their age, the respondents were asked two questions in the individual interview: "In what month and year were you born"? and "How old were you at your last birthday?" The interviewers did probe age in situations in which respondents did not know their age or date of birth, and they were instructed as a last resort to record their best estimate of the respondent's age.

The age distribution of ever-married women is seen to be similar to that found in the RSDP 1998 survey. A little more than 49 percent of ever-married women are in age 15-29 and 51.4 percent are in age 20-34. The RSDP and non-RSDP areas have similar age distribution patterns. The distribution of respondents by division of residence is similar to that of the RSDP 1998 survey. More than one-third (35.5 percent) of women in project areas live in Dhaka division, while 23.1 percent live in Rajshahi division, 14.1 percent live in Chittagong division, 19.9 percent live in Sylhet and 7.4 percent live in Khulna/Barisal division.

Almost 94 percent of women are currently married, 4 percent are widowed and the remainder is either separated/deserted or divorced. Almost 86 percent lives with their husband. A little over 95 percent of women married once and about 4 percent married more than once.

Table 3.1 also shows that more than half (59 percent) of ever-married women have never attended school, 22.9 percent have attended only primary school or completed primary education, and 15.6 percent have some secondary level of education. Although educational attainment of women in the sample is low; it may be noted here that the proportions of women with primary and secondary education have increased since the 1998 RSDP Baseline Survey. Only 23.3 percent of sampled women in project areas can read or write easily, almost 8 percent can read or write with some difficulty and 69 percent cannot read or write at all. Reading or writing easily is relatively better in non-RSDP areas (29 percent) compared to RSDP areas (23 percent).

About nine in ten women are Muslim, with most of the remainder being Hindu. The composition by religion is similar in both the RSDP and non-RSDP areas.

The women's sample differs only slightly from the 1998 Baseline Survey sample. Women in the current sample are more likely to be currently married, and there has been a 5.8 percentage point drop in the proportion of women with no education. The age distribution of women in the sample, however, is nearly identical in both surveys.

Table 3.1 Background characteristics of respondents

Percent distribution of women by selected background characteristics, by RSDP and non-RSDP areas

		RSDP			Non-RSDF	)
		Number	of women		Number of	of Women
Background Characteristics	% of			% of		
	Women	Weighted	Unweighted	Women	Weighted	Unweighted
Age group						
10-14	1.8	176	179	1.4	44	37
15-19	14.5	1,393	1395	13.7	427	418
20-24	17.8	1,710	1702	18.2	569	572
25-29	18.0	1,728	1735	17.7	553	551
30-34	16.7	1.606	1605	15.4	481	485
35-39	14.0	1,351	1350	14.1	439	438
40-44	10.6	1,018	1013	11.5	360	369
45-49	6.7	644	646	8.0	249	252
Division						
Chittagong	14.1	1,361	1230	17.0	529	407
Khulna/Barisal	7.4	713	1392	9.6	299	306
Dhaka	35.5	3,413	3156	36.7	1,147	1,380
Rajshahi	23.1	2,227	2108	26.5	827	524
Sylhet	19.9	1,911	1739	10.2	320	505
Current Marital status						
Married	93.4	8,986	8,994	93.6	2,921	2,912
Separated	0.9	87	86	1.0	32	31
Deserted	0.4	43	44	0.4	13	13
Divorced	1.2	120	118	1.0	31	37
Widowed	4.1	390	383	4.0	124	129
Husband staying with her						
Yes	85.8	8,254	8321	85.6	2,671	2658
No	7.6	731	673	8.0	250	254
Missing	6.6	639	631	6.4	201	210
Married once/more than once						
Once	95.7	9,213	9215	96.4	3,009	3013
More than once	4.3	412	410	3.6	113	109

Table 3.1 Background characteristics of respondents

Percent distribution of women by selected background characteristics, by RSDP and non-RSDP areas

	RSDP			Non-RSDP			
	Number of women				Number of Women		
Background Characteristics	% of			% of			
	Women	Weighted	Unweighted	Women	Weighted	Unweighted	
Highest educational level							
No education	59.9	5,766	5731	54.1	1,690	1709	
Primary	22.9	2,202	2236	24.5	766	770	
Secondary	15.6	1,497	1497	18.5	576	562	
Higher secondary	1.1	104	105	2.1	66	58	
College/University	0.6	56	56	0.8	24	23	
D 1/W : 1 ::							
Read/Write letter	22.2	2245	2271	20.0	002	00.	
Easily	23.3	2,246	2251	28.9	903	895	
With difficulty	7.7	738	735	7.9	247	247	
Not at all	68.9	6,628	6625	62.9	1,964	1972	
Missing	0.1	13	14	0.3	8	8	
Religion							
Islam	90.2	8,682	8736	86.3	2,694	2684	
Hinduism	9.7	930	876	13.6	425	435	
Buddhism	0.0	0	0	0.0	1	1	
Christianity	0.1	14	13	0.1	2	2	
Total	100.0	9,625	9,625	100.0	3,122	3,122	

Note: Education categories refer to the highest level of education attended, but not necessarily completed.

### 3.2 Differentials in Education

The distribution of women by highest level of education attained by selected characteristics is given in table 3.2. Among the respondents, education is inversely related to age, that is, older women are less educated than younger women. Table 3.2 also shows that 36.6 percent of ever-married women aged 15-19 years have never attended school, compared with 74.3 percent of those aged 45-49 years and 32.8 percent women aged 15-19 years have secondary level education compared with 6.5 percent of those aged 45-49 years.

Women in Chittagong, and Khulna/Barisal division are relatively better educated than those of the other divisions. Women with secondary level education are more in Chittagong division (21 percent) compared to other divisions.

It is seen that proportion of women with no education is higher in RSDP area (60 percent) compared with non-RSDP area (54 percent). The proportions of women with primary, secondary, higher secondary or college/university education are higher in non-RSDP areas than in RSDP areas.

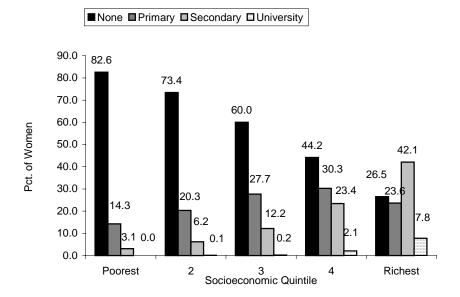
Table 3.2 Educational attainment by background characteristics

Percent distribution of women by highest level of schooling attained, and median number of years of schooling, according to selected background characteristics, RSDP/non-RSDP areas

		Highest Educational Level							
	No Education	Primary	Secondary	Higher Secondary	College/ University	TOTAL	Median Years of Schooling	Number	
Age group									
10-14	21.9	45.9	32.3	0.0	0.0	100.0	4.6	176	
15-19	36.6	29.1	32.8	1.1	0.4	100.0	5.0	1,393	
20-24	50.5	25.6	20.0	2.4	1.4	100.0	0.0	1,710	
25-29	62.7	22.4	13.0	1.2	0.8	100.0	0.0	1,728	
30-34	67.3	19.9	11.0	1.2	0.6	100.0	0.0	1,606	
35-39	70.8	19.2	9.7	0.3	0.0	100.0	0.0	1,351	
40-44	74.5	18.5	6.8	0.3	0.1	100.0	0.0	1,018	
45-49	74.3	19.1	6.5	0.0	0.2	100.0	0.0	644	
Division									
Chittagong	50.7	25.8	21.1	1.5	0.9	100.0	0.0	1,361	
Khulna/Barisal	52.0	30.5	15.8	1.2	0.5	100.0	0.0	713	
Dhaka	62.9	21.9	13.9	0.9	0.4	100.0	0.0	3,413	
Rajshahi	62.2	21.4	14.7	1.1	0.6	100.0	0.0	2,227	
Sylhet	61.3	21.5	15.5	1.0	0.7	100.0	0.0	1,911	
Total RSDP	59.9	22.9	15.6	1.1	0.6	100.0	0.0	9,625	
Non-RSDP	54.1	24.5	18.5	2.1	0.8	100.0	0.0	3,122	

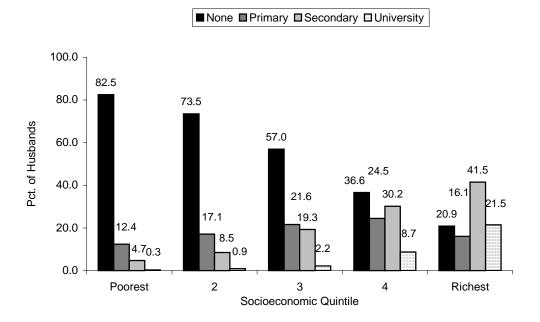
Educational attainment is clearly associated with socioeconomic status (Figure 3.1). Approximately 83 percent of women in RSDP project areas in the lowest asset quintile received no formal education, as compared with only 27 percent of women in the highest asset quintile. Approximately 8 percent of women in the highest asset quintile have had higher secondary or university education, but no women in the lowest asset quintile have.

Figure 3.1 Level of Education by Asset Quintiles, Project Areas



A similar distribution of educational levels by asset quintile is apparent for husbands as well (Figure 3.2). Again, approximately 83 percent of husbands in the lowest asset quintile received no formal education, as compared with about 21 percent of husbands in the highest quintile. Approximately 22 percent of husbands in the highest asset quintile attended university, but less than 1 percent of husbands in the lowest asset quintile did.

Figure 3.2 Distribution of Husband's Education Levels by Asset Quintiles, Project Areas



# 3.3 Exposure to Mass Media

Women were asked in the 2001 RSDP Evaluation Survey whether they usually read a newspaper or magazine, listen to the radio, watch television, and how often they expose themselves to these media. Table 3.3 shows the percentage of women exposed to different types of mass media. In RSDP areas, 7.6 percent of women usually read newspapers/magazines. However, less than 1 percent read newspaper/magazine everyday, 3 percent read at least once a week and 4 percent read less than once a week. These percentages are higher in non-RSDP areas. About 34 percent of women in RSDP areas usually listen to the radio, but 15.5 percent listen to the radio every day and 14 percent listen at least once a week. Twenty-eight percent of women usually watch television, but only 11.7 percent watch every day, and an additional 12.1 percent watch television at least once a week.

Differentials in exposure to different media are given in table 3.4 for the ever-married women. It is seen that younger women are somewhat more likely than older women to watch television. Exposure to all three media is higher among Chittagong and Sylhet division women and more educated women. Exactly 2.3 percent of women of Chittagong division and 3 percent of Sylhet division have exposure to all three media, while 1.3 percent of women of Dhaka, 1.0 percent of Rajshahi and less than 1 percent of Khulna/Barisal divisions women are exposed to all the three media. About 72 percent of women with no education have no exposure to any media. Educated women are more likely to read newspaper, watch television, and listen to the radio at least once a week. Thirty-seven percent of women with college/university education, 23 percent of women with higher secondary education, and 6 percent of women with secondary education are exposed to all the three media.

<u>Table 3.3 Access to mass media</u>

Percent distribution of women by selected background characteristics by RSDP and non-RSDP areas

	RSDP		Non-	Non-RSDP		
	% of Women	Number	% of Women	Number		
Usually reads paper or magazine						
Yes	7.6	730	9.5	297		
No	92.4	8,895	90.5	2,825		
How often reads newspaper						
Does not read/cannot read	92.4	8,895	90.5	2,825		
Every day	0.6	53	1.2	37		
At least once a week	2.9	279	3.1	98		
Less than once a week	4.1	397	5.2	162		
Usually listens to radio						
Yes	34.3	3,303	36.1	1,126		
No	65.7	6,322	63.9	1,996		
How often listens to radio						
Does not listen	65.7	6,322	63.9	1,996		
Every day	15.5	1,487	16.5	514		
At least once a week	14.0	1,347	14.5	451		
Less than once a week.	4.9	469	5.1	160		
Watches TV						
Yes	28.3	2,711	34.7	1,084		
No	71.7	6,914	65.3	2,038		
How often watches TV						
Does not watch	71.7	6,904	65.3	2,038		
Every day	11.7	1,130	17.3	540		
At least once a week	12.1	1,160	12.7	397		
Less than once a week	4.5	431	4.7	147		

Table 3.4 Exposure to mass media

Percentage of women who usually read a newspaper weekly, watch television weekly, and listen to the radio weekly, by selected background characteristics, RSDP areas only

Background Characteristic	No mass media	Reads a newspaper weekly	Watches television weekly	Listens to the radio weekly	All three media	Number
A go group						
Age group 10-14	49.5	1.9	25.8	38.5	1.3	176
15-19	49.3	4.3	28.7	37.8	1.5	1,393
20-24	56.0	4.3	26.7	37.8	2.1	1,393
25-29 25-29	60.6	3.4	20.8	28.8	2.1	· ·
30-34	61.9	2.8	24.4	26.8	1.3	1,728 1,606
35-39	64.2	2.8	24.0	25.5	1.5	· ·
40-44	66.4	2.7	18.5	23.3	1.1	1,351 1,018
40-44 45-49	66.8	3.3	18.3	25.1	1.6	644
43-49	00.8	3.3	16.4	23.1	1.9	044
Division						
Chittagong	53.5	4.0	28.4	35.2	2.3	1,361
Khulna/Barisal	61.6	3.0	21.3	27.8	0.8	713
Dhaka	60.7	2.6	24.6	27.4	1.3	3,413
Rajshahi	61.2	2.6	22.3	28.2	1.0	2,227
Sylhet	60.3	5.8	21.7	31.0	3.0	1,911
Highest educational level						
No education	72.1	0.0	14.9	19.9	0.0	5,766
Primary	51.9	2.4	27.5	36.5	1.0	2,202
Secondary	29.6	14.2	47.7	51.3	6.1	1,497
Higher secondary	9.1	37.6	68.4	71.4	22.9	104
College/University	4.8	48.0	76.7	73.8	37.4	56
Conege, oniversity	7.0	70.0	70.7	75.0	37.4	
Total	59.8	3.5	23.8	29.4	1.6	9,625

## 3.4 Membership in NGOs

In the 2001 RSDP Evaluation Survey, the respondents were asked whether they have membership or affiliation with any non-government organizations. The major non-government organizations engaged in development activities in Bangladesh are Grameen Bank, BRAC, BRDD, Mother's Club, Proshika and Asha. Approximately one-quarter of women in RSDP areas belong to some NGO. Just over 7 percent of women in RSDP areas belong to Grameen Bank, 7.7 percent of women are associated with BRAC, 0.7 percent of women have relationships with BRDP, 2.0 percent have affiliations with Proshika, 2.5 percent of women have membership with Asha, and 7.2 percent belong to other organizations (Table 3.5). Membership in all organizations is higher in non-RSDP areas than in RSDP areas.

<u>Table 3.5 Membership in NGOs</u>

Percent distribution of women by selected background characteristics, by RSDP and non-RSDP area

	RS	DP	Non-RSDP	
	% of Women	Number	% of Women	Number
Belongs to Grameen bank				
Yes	7.3	706	7.5	235
No	92.7	8,919	92.5	2,887
Belongs to BRAC				
Yes	7.7	745	8.2	256
No	92.3	8,880	91.8	2,866
Belongs to BRDP				
Yes	0.7	64	2.0	61
No	99.3	9,561	98.0	3,061
Mother's Club				
No	100.0	9,625	100.0	3,122
Proshika				
Yes	2.0	189	2.4	76
No	98.0	9,436	97.6	3,046
Asha				
Yes	2.5	239	2.9	91
No	97.5	9,386	97.1	3,031
Belongs to other organization				
Yes	7.2	695	8.4	262
No	92.8	8,930	91.6	2,860
Belongs to any?				
Yes	24.3	2,335	26.9	840
No	75.7	7,290	73.1	2,282
INU	13.1	1,490	/3.1	2,282

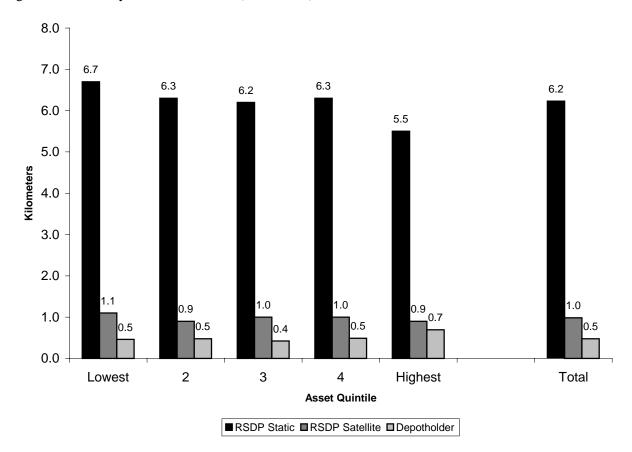
# 3.5 Proximity to Health Care Facilities

Women are approximately 6.2 kilometers on average from the nearest RSDP static clinic (Table 3.6, Figure 3.3). There is minor variation across asset quintiles within the project as a whole. Women in the lowest asset quintile are 1.2 kilometers farther, on average, from RSDP static clinics than women in the highest asset quintile. However, there is little difference between asset quintiles in access to satellite clinics and depotholders. On average, women are one kilometer from an RSDP satellite clinic, slightly closer in the highest asset quintile. Women in all but the highest asset quintile are 0.5 kilometers from an RSDP depotholder.

Table 3.6 Distance to Facilities						
		to nearest RSDP	facilities by			
asset quintile	and division, R					
		RSDP Satellite	D 4 11			
	Clinic	Clinic	Depotholder			
Chittagong						
Lowest	7.4	0.5	0.4			
2	6.4	0.5	0.3			
3	6.3	0.6	0.3			
4	6.7	0.5	0.3			
Highest	6.2	0.6	0.3			
Total	6.6	0.5	0.3			
Khulna/Barisa	al					
Lowest	8.2	3.4	0.4			
2	7.1	1.1	0.4			
3	8.0	2.3	0.5			
4	7.4	1.3	0.5			
Highest	7.2	1.2	1.0			
Total	7.6	1.9	0.5			
Dhaka						
Lowest	5.9	1.1	0.4			
2	5.4	1.1	0.5			
3	5.3	1.1	0.5			
4	5.5	1.2	0.4			
Highest	4.2	1.2	0.4			
Total	5.3	1.1	0.4			
Rajshahi						
Lowest	6.8	1.2	0.6			
2	6.7	1.1	0.5			
3	6.5	1.1	0.5			
4	6.6	1.3	0.6			
Highest	6.5	1.4	0.5			
Total	6.6	1.2	0.5			
Sylhet	3.0	1.2	0.5			
Lowest	7.2	0.3	0.4			
2	7.0	0.4	0.5			
3	6.6	0.5	0.5			
4	6.5	0.4	0.5			
Highest	5.4	0.5	0.8			
Total	6.6	0.4	0.5			

Table 3.6 Dis	Table 3.6 Distance to Facilities						
Mean distanc	es (kilometers)	to nearest RSDP	facilities by				
asset quintile	and division, R	SDP Areas					
	RSDP Static	RSDP Satellite					
	Clinic	Clinic	Depotholder				
RSDP Total							
Lowest	6.7	1.1	0.5				
2	6.3	0.9	0.5				
3	6.2	1.0	0.5				
4	6.3	1.0	0.5				
Highest	5.4	0.9	0.6				
Total	6.2	1.0	0.5				

Figure 3.3 Proximity to RSDP Services (Kilometers)



## **CHAPTER 4. FERTILITY**

The 2001 RSDP Evaluation Survey collected information on current, past, and cumulative fertility. Birth histories were collected from all ever-married women aged 10 to 49 years. These data permit comparisons of age-specific rates in different time periods going back fifteen years, as well as examining birth intervals.

## **4.1 Current Fertility**

Table 4.1 presents total fertility rates for women aged 10-49 years for the three years preceding the survey. The total fertility rate is the number of births that a woman would have by the end of her childbearing years using currently observed age-specific fertility rates. Overall, the total fertility rate for women aged 15 to 49 years in the RSDP project areas in the three years preceding the survey is 3.6 births per woman. This is slightly higher than in the non-RSDP areas, where the total fertility rate is 0.3 births lower at 3.3 births per woman. Fertility rates are highest in Sylhet (4.3) and Chittagong (4.0) and lowest in Khulna/Barisal (2.9) and Rajshahi (2.9). In general, the highest age-specific fertility rate is in the 20-24 age group. The exception is in Rajshahi division where births occur most frequently in the 15 to 19 age group. Age-specific fertility rates for RSDP and non-RSDP areas are very similar (Figure 4.1). For both RSDP and non-RSDP areas, fertility rates are highest in the 20-24 age group.

Table 4.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by division and RSDP/non-RSDP

and KSDI / non-KSDI									
		Division							
Age group	Chittagong	Khulna/Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP		
					-				
15-19	145	155	145	172	129	146	138		
20-24	212	186	205	163	211	197	184		
25-29	197	118	153	121	189	156	156		
30-34	118	85	123	58	161	114	101		
35-39	59	33	67	26	94	59	53		
40-44	31	7	26	22	44	28	23		
45-49	39	5	8	8	21	15	10		
TFR 15-49	4.00	2.94	3.63	2.85	4.25	3.57	3.32		
TFR 15-44	3.81	2.92	3.59	2.81	4.14	3.50	3.27		
GFR	143	112	133	110	149	131	123		
CBR	32.7	26.3	30.3	26.1	34.3	30.3	28.7		

TFR: Total fertility rate for ages 15-49 expressed per woman

GFR: General fertility rate (births divided by the number of women age 15-44) expressed per 1,000 women

CBR: Crude birth rate expressed per 1,000 population

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.



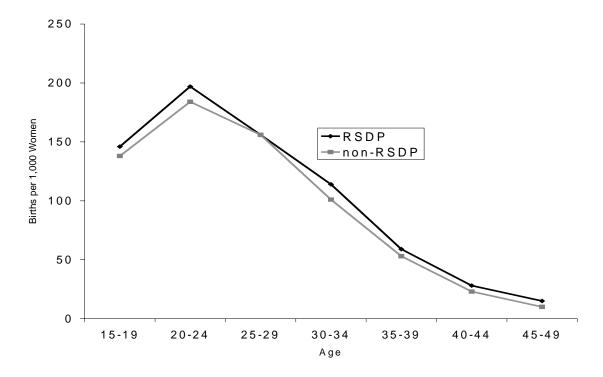


Table 4.2 shows differences in total fertility rates in the three years preceding the survey by division. Overall, 7.5 percent of women in RSDP areas are currently pregnant. The percentages are higher in the higher fertility areas of Sylhet, Dhaka and Chittagong.

Table 4.2 Fertility by background characteristics  Total fertility rate for the three years preceding the survey and percentage currently pregnant by background characteristics in RSDP area							
Background characteristic	Total fertility rate <sup>1</sup>	Percentage currently pregnant					
Residence	4.00	7.10					
Chittagong Khulna/Barisal	4.00 2.94	7.10 5.66					
Dhaka	3.63	8.41					
Rajshahi	2.85	5.92					
Sylhet	4.25	9.68					
Total - RSDP 3.57 7.57							
<sup>1</sup> Rate for women age 15-49 years							

Fertility is slightly negatively related to socioeconomic status. Women in project areas in the lowest asset quintile have approximately 0.3 more children than women in the highest asset quintile – 3.3 children ever born versus 3.0 children ever born. However, the highest fertility levels are in the middle (3.5 children) and second richest asset quintile (3.4 children). There is little difference in the mean number of children ever born between women in project areas and women in non-project areas. (TABLE/ GRAPH?)

# **4.2 Fertility Trends**

Total fertility rates were not calculated in the 1998 Baseline Survey and therefore comparisons are not made here. However, it is possible to look at period specific fertility rates from women's birth histories to determine how fertility has changed over time.

Fertility has been declining in both project and non-project areas and in all divisions over the past 15 years. (table 4.3.) The rate of the decline has been largest in the last five-year period prior to the survey, when the total fertility rate fell by 1.24 births from the rate in the 5-9 year period preceding the survey. These rates differ by division. The greatest fall was in Chittagong where fertility had been highest; the total fertility rate fell from 5.8 births per women in the 5-9 year period to 4.2 births in the 0-4 year period. The smallest decline was in Khulna/Barisal, where fertility was at the lowest, falling from 4.1 to 3.0 births per woman.

Figure 4.2 visually represents the trends in total fertility rates for all RSDP areas, total RSDP areas and non-RSDP areas.

### Table 4.3 Trends in total fertility rates

Total Fertility Rates for the periods 1-60 months, 61-120 months and 121-180 months prior to the survey by division and RSDP/non-RSDP areas

	Period Preceding the Survey							
	1-60 mos.	61-120 mos	121-180 mos	1-60 months v. 61-120 months		120 months   1-60 months v. 121-180 m		
Division				Pct. Change	Absolute Change	Pct. Change	Absolute Change	
Chittagong	4.2	5.8	6.5	-28%	-1.6	-35%	-2.3	
Khulna/Barisal	3.0	4.1	5.4	-26%	-1.1	-44%	-2.4	
Dhaka	3.8	5.0	5.7	-23%	-1.2	-33%	-1.9	
Rajshahi	3.0	4.2	5.1	-29%	-1.2	-41%	-2.1	
Sylhet	4.4	5.5	5.7	-20%	-1.1	-23%	-1.3	
RSDP	3.7	5.0	5.7	-25%	-1.3	-34%	-1.9	
Non-RSDP	3.4	4.7	5.4	-28%	-1.3	-37%	-2.0	

Figure 4.2 Trends in Total Fertility Rates, RSDP and non-RSDP areas

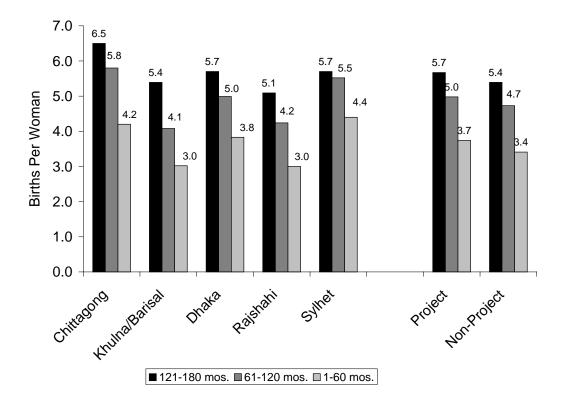


Table 4.4 provides additional information regarding trends in age-specific fertility rates. Values for certain age groups for certain periods are missing because they would have been too old to be interviewed for this survey, i.e. no data are available on women aged 40-44 in the period 10-14 years prior to the survey because they would have been 50 to 54 years old at the time of the survey and therefore ineligible for interview. These data show a declining trend in fertility rates for all age groups. These data are susceptible, however, to reporting errors in the dates of birth.

Table 4.4 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey by mother's age at the time of the birth, by city type and RSDP and non-RSDP areas

Mother's age at birth	Number of years preceding the survey				
	0-4	5-9	10-14		
Chittagong					
15-19	155	226	242		
20-24	220	271	304		
25-29	202	241	285		
30-34	120	172	249		
35-39	68	141	219		
40-44	42	110	-		
45-49	32	-	-		
Khulna/Barisal					
15-19	167	225	260		
20-24	181	216	257		
25-29	129	165	249		
30-34	82	107	193		
35-39	31	78	120		
40-44	11	26	-		
45-49	4	-	-		
Dhaka					
15-19	154	233	244		
20-24	211	253	281		
25-29	159	204	246		
30-34	128	156	205		
35-39	70	91	165		
40-44	26	62	-		
45-49	17	-	-		
Daishah:					
Rajshahi	102	227	260		
15-19	183	237	260		
20-24	178	226	275		
25-29	111	171	193		
30-34 35-39	68 34	98 79	169 121		
			121		
40-44	20	37	-		
45-49	7	=	-		

Table 4.4 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey by mother's age at the time of the birth, by city type and RSDP and non-RSDP areas

Mathan's aga at hinth	Number of years preceding the survey				
Mother's age at birth	0-4	5-9	10-14		
Sylhet	0 1	3 /	10 11		
15-19	134	182	212		
20-24	217	264	276		
25-29	194	247	268		
30-34	164	194	223		
35-39	99	129	161		
40-44	44	88	-		
45-49	26	-	-		
Total RSDP					
15-19	156	222	242		
20-24	204	249	280		
25-29	159	209	245		
30-34	118	149	206		
35-39	64	102	161		
40-44	30	67	-		
45-49	18	-	-		
Total Non-RSDP					
15-19	147	201	229		
20-24	196	247	265		
25-29	154	205	239		
30-34	98	135	190		
35-39	50	93	156		
40-44	24	65	-		
45-49	14	-	-		

Note: Age-specific fertility rates are per 1,000 women.

### **4.3 Birth Intervals**

Proper birth spacing is beneficial to the health of both the mother and her children. An adequate interval between births is considered to be 24 months. In RSDP areas, 12.7 percent of births occur before 24 months after the previous birth. Overall, 6.1 percent of births in RSDP areas occur between 7 and 17 months from the previous birth and 6.6 percent of births occur between 18 and 23 months from the previous birth.

Median birth intervals are nearly identical – approximately 38 to 39 months - in both RSDP and non-RSDP areas. Khulna/Barisal divisions have the longest median birth intervals, 44.9 months; Sylhet has the shortest median birth interval, 36.1 months. Birth intervals tend to be longer for children of mothers with higher levels of education, older mothers, and lower parity births.

Table 4.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to background characteristics, RSDP/non-RSDP

	Months since preceding births					Median number		
Background characteristic	7-17	18-23	24-35	36-47	48+	Total	of months since preceding birth	Number of births
Age	/-1/	16-23	24-33	30-47	40+		preceding on the	OI DITUIS
15-19	24.6	16.1	41.5	14.9	3.0	100.0	25.6	220
20-29 30-39	6.2 4.2	7.4 4.2	31.1 28.3	25.6 24.7	29.6 38.5	100.0 100.0	37.6 41.7	2,881 1,702
40-49	2.3	4.2 4.4	28.3 22.6	23.8	38.3 46.9	100.0	45.9	284
Birth order 2-3	6.4	7.0	26.7	24.1	35.7	100.0	40.1	2,630
4-6	5.5	5.8	31.8	25.6	31.2	100.0	37.9	1,835
7+	6.4	7.0	39.7	25.0	22.0	100.0	35.4	624
Sex of preceding birth								
Male	6.0	6.2	29.8	23.9	34.0	100.0	38.9	2,534
Female	6.2	6.9	30.5	25.5	30.9	100.0	37.9	2,554
Survival of preceding birth								
Living	3.6	5.3	30.2	26.1	34.8	100.0	40.0	4,413
Dead	22.3	15.2	29.7	16.1	16.7	100.0	27.7	675
Division								
Chittagong Khulna/Barisal	6.6 5.1	5.6 6.9	31.3 24.6	31.0 18.4	25.5 44.9	100.0 100.0	37.8 44.9	844 284
Dhaka	6.0	6.7	29.2	23.6	34.5	100.0	39.1	1,828
Rajshahi	5.1	6.1	25.2	23.7	39.9	100.0	42.2	876
Sylhet	6.8	7.4	35.5	24.3	26.0	100.0	36.1	1,255
Education								
No education	6.3	6.4	31.1	24.5	31.7	100.0	37.8	3,382
Primary Secondary	5.3 6.2	6.8 7.1	30.1 25.4	25.8 24.4	32.0 36.9	100.0 100.0	39.0 40.9	1,124 539
Higher Secondary	4.0	11.7	22.5	25.1	36.7	100.0	43.9	28
College/University	23.4	7.3	6.6	14.8	47.9	100.0	46.7	16
Total – RSDP	6.1	6.6	30.2	24.7	32.4	100.0	38.3	5,088
Total Non-RSDP	6.5	8.2	26.6	22.5	36.2	100.0	38.9	1,469

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

### **CHAPTER 5. FAMILY PLANNING**

The 2001 RSDP Evaluation Survey collected information on knowledge of family planning methods, as well as current and ever use of family planning methods.

# **5.1 Knowledge of Contraceptive Methods**

Currently married and ever-married women were asked whether they had heard about any family planning methods and about their awareness of types of methods. Tables 5.1A and 5.1B give the percentage of ever-married women and currently married women who know any contraceptive method by specific methods and RSDP and non-RSDP areas. Knowledge of family planning method is almost universal. Almost all the women of RSDP and non-RSDSP areas know at least one modern method of family planning. For ever married women, 62.7 percent in RSDP areas and 65.2 percent in non-RSDP areas know at least one traditional method.

Pill, injectables, and female sterilization are the most commonly known family planning methods among both the currently married and the ever-married women in RSDP project and non-RSDP areas. Exactly 84.4 percent of RSDP and 86.5 percent of non-RSDP women have heard about IUD and roughly 80 percent of RSDP areas and 85 percent of non-RSDP areas have heard about the male condom. Other known methods to currently married and ever-married women are male sterilization (two thirds women of RSDP and non-RSDP areas) and implants/Norplants (close to two thirds women of RSDP and non-RSDP areas). Among the traditional methods, periodic abstinence (about 60 percent) and withdrawal (about 30 percent) are the most known methods in RSDP areas and non-RSDP areas.

Table 5.1A also gives the mean number of family planning methods known to ever-married women of RSDP and non-RSDP areas. The knowledge gap between women of RSDP and non-RSDP areas is very little (6.8 percent vs. 6.9 percent). The average number of methods known is highest for ever-married women of Khulna/Barisal and Rajshahi division (7.2 percent) and lower for women of Sylhet division (6.2 percent).

There has been little change since 1998 in the level of knowledge of family planning. 98.5 percent of women in RSDP areas and 99.2 percent of women in non-RSDP areas knew of any contraceptive method. The largest gain was in Sylhet, where awareness of family planning increased by 2.2 percentage points from 96.5 percent of women.

Knowledge of contraceptive methods by selected background characteristics is given in Table 5.2A. The percentage distribution of ever-married women who know at least three contraceptive methods shows very little difference in knowledge among different age groups, and among the respondents with different levels of education. However, knowledge of at least three modern is lower for ever-married women of Sylhet division (94.2 percent) and most known to the women of Khulna/Barisal division (99.5 percent). Levels of knowledge are slightly higher among non-RSDP women (98.6 percent) as compared with RSDP women (97.4 percent).

Knowledge of appropriate methods for limiting and spacing births by division and RSDP and non-RSDP areas is given in table 5.2B. To the ever-married women of RSDP project areas, female sterilization is the most widely known (73.6 percent) limiting method, followed by injectables (23.8 percent), Pill (17.7 percent), male sterilization (10.6 percent) and IUD (9.1 percent). Female sterilization (77.3 percent), injectables (21.2 percent), Pill (18.2 percent) and male sterilization (9.3 percent) are the major methods for limiting births as stated by the ever-married women of non-RSDP areas.

Table 5.1A Knowledge of contraceptive methods

Percentage of  $\underline{\text{ever}}$  married women who know any contraceptive method or specific method, by division and RSDP/non-RSDP areas.

	Chittagong	Khulna/	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Method		Barisal					
Any method	99.8	100.0	99.9	99.9	98.7	99.6	99.8
Modern Methods							
Any modern method	99.8	100.0	99.8	99.9	98.6	99.6	99.8
Pill	99.6	99.9	99.7	99.8	97.9	99.4	99.6
IUD	78.5	91.4	84.8	90.5	78.3	84.4	86.5
Injection	97.7	99.4	98.3	99.0	95.0	97.8	98.6
Male condom	79.2	89.8	82.9	85.2	67.9	80.4	84.9
Female sterilization	95.0	98.3	95.5	96.8	91.0	95.1	96.3
Male sterilization	58.9	72.6	68.3	79.7	56.7	67.6	66.7
Implants	63.5	54.7	56.8	72.7	53.1	60.5	58.3
Menstrual regulation	2.1	1.8	3.4	3.9	2.7	3.1	4.6
Traditional Methods							
Any traditional method	54.5	68.9	67.4	64.9	55.3	62.7	65.2
Periodic abstinence	52.0	65.6	64.7	61.7	48.2	59.0	61.4
Withdrawal	20.5	39.8	28.3	29.2	32.0	29.0	30.9
Other	1.3	3.7	2.5	1.9	0.8	2	2.8
Mean no. methods known	6.5	7.2	6.9	7.2	6.2	6.8	6.9
Number of women	1,361	713	3,413	2,227	1,911	9,625	3,122

Table 5.1B Knowledge of contraceptive methods

Percentage of <u>currently</u> married women who know any contraceptive method or specific method, by division and RSDP/non-RSDP areas.

	Chittagong	Khulna/	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Method		Barisal					
Any method	99.8	100.0	99.9	99.9	99.1	99.7	99.8
Modern Methods							
Any modern method	99.8	100.0	99.9	99.9	99.0	99.7	99.8
Pill	99.5	99.9	99.8	99.9	98.4	99.5	99.7
IUD	79.3	91.3	85.1	91.1	79.3	85.0	86.9
Injection	98.2	99.8	98.6	99.1	95.9	98.2	98.8
Male condom	80.4	90.3	83.8	86.1	69.7	81.6	86.1
Female sterilization	95.8	98.2	95.8	96.9	91.8	95.5	96.5
Male sterilization	59.3	72.4	68.4	79.9	57.4	67.9	66.9
Implants	64.7	54.9	57.4	73.1	54.8	61.4	59.1
Menstrual regulation	2.3	1.5	3.5	4.0	2.7	3.1	4.6
Traditional Methods							
Any traditional method	56.0	69.1	68.5	65.4	56.8	63.8	65.7
Periodic abstinence	53.4	65.6	65.7	62.4	49.6	60.0	61.8
Withdrawal	21.6	40.3	28.9	29.8	32.9	29.7	31.4
Other	1.4	3.7	2.6	1.9	0.8	2.0	2.8
Mean no. methods known	6.6	7.2	6.9	7.2	6.3	6.8	6.9
Number of women	1,280	668	3,221	2,086	1,729	8,986	2,921

Table 5.2A Knowledge of contraceptive methods by background characteristics

Percentage of ever married women who know at least three contraceptive methods by selected background characteristics, RSDP and non-RSDP areas

Background Characteristic	Knows any Three Modern Methods	Number of Women
Age	00.0	176
10-14	88.0	176
15-19	96.6	1,393
20-24	97.6	1,710
25-29	98.4	1,728
30-34	98.3	1,606
35-39	98.2	1,351
40-44	96.0	1,018
45-49	96.8	644
Division		
Chittagong	97.4	1,361
Khulna/Barisal	99.5	713
Dhaka	97.8	3,413
Rajshahi	98.9	2,227
Sylhet	94.2	1,911
Highest educational level		
No education	96.6	5,766
Primary	98.2	2,202
Secondary	98.9	1,497
Higher secondary	100.0	104
College/University	98.0	56
RSDP	97.4	9,625
Non-RSDP	98.6	3,122

Table 5.2B Appropriate method for limiting of births

Percentage of ever married women who report a method as appropriate for limiting births, by division and RSDP/non-RSDP areas

		Khulna/					
Limiting Method	Chittagong	Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Female Sterilization	73.0	78.8	71.7	82.8	64.9	73.6	77.3
Male Sterilization	73.0	14.7	8.6	19.7	4.6	10.6	9.3
Pill	14.2	18.4	18.9	19.3	16.0	17.7	18.2
IUD	5.0	11.1	10.5	8.8	9.1	9.1	11.0
Injections	22.6	25.9	24.4	24.2	22.5	23.8	21.2
Implants	4.3	4.4	4.2	5.2	2.7	4.2	4.3
Condom	1.6	2.9	3.2	2.3	1.4	2.4	2.7
Periodic Abstinence	0.4	1.3	1.4	1.0	0.3	1.0	1.0
Menstrual Regulation	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Withdrawal	0.3	0.8	0.4	0.4	0.2	0.4	0.6
Other	0.9	3.4	1.0	0.8	0.2	1.0	1.3

According to ever-married women in RSDP areas, the Pill (83.1 percent), injectables (62.7 percent), condom (21.0 percent), and IUD (19.3 percent) are major methods for spacing births (Table 5.2C). Knowledge is nearly identical for RSDP women across divisions and for women of non-RSDP areas.

## Table 5.2C Appropriate method for spacing of births

Percentage of ever married women know of at least one method who report a method as appropriate for spacing births, by division and RSDP/non-RSDP areas

Spacing Method	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Female Sterilization	1.5	0.4	1.5	1.0	1.2	1.3	1.1
Male Sterilization	0.1	0.1	0.4	0.3	0.3	0.3	0.2
Pill	78.7	87.4	82.7	90.0	77.2	83.1	85.2
IUD	18.1	23.7	18.1	22.3	17.3	19.3	23.5
Injections	60.5	67.2	59.8	70.3	58.7	62.7	60.4
Implants	9.7	5.7	6.8	11.8	7.0	8.3	7.3
Condom	17.5	26.3	22.9	24.9	13.7	21.0	24.7
Periodic Abstinence	2.4	4.2	4.0	3.8	2.1	3.4	4.2
Menstrual Regulation	0.4	0.1	0.2	0.3	0.5	0.3	0.5
Withdrawal	1.2	1.5	1.2	0.7	1.5	1.2	1.5
Other	0.2	0.6	0.1	0.3	0.2	0.2	0.5

## **5.2 Current Use of Contraception**

Current use of contraception is defined as the proportion of currently married women who were using a family planning method at the time of interview. This is also termed as contraceptive prevalence rate (CPR). Table 5.3A shows the percentage of currently married women age 10 to 49 by current use of contraceptive methods with method mix, according to selected background characteristics.

Overall, 47 percent of currently married women of RSDP project areas are current users of a contraceptive method. Modern methods are much preferred (40.4 percent) to traditional methods (6.5 percent). Among the modern methods, the Pill continues to be the most popular method (20.4 percent) of contraception, followed by injections (11.0 percent), female sterilizations (5.5 percent), condoms (1.8 percent) and IUDs (0.7 percent). Periodic abstinence is the most prominent traditional method (5.2 percent).

#### **Differentials in Current Use**

Current use of contraception in RSDP project areas varies considerably by age. Current use is highest among married women in their thirties, over 55 percent are using some method of family planning. The CPR is highest in Khulna/Barisal (64.5 percent) and Rajshahi (62.1 percent) divisions and lowest in Sylhet (25.5 percent) and Chittagong (37.3 percent) divisions. The use rates have risen considerable in Khulna/Barisal (from 55.5 to 64.5 percent) and Rajshahi (from 55 to 62.1 percent) divisions, but have fallen to some extent in Sylhet (from 30.8 to 25.5 percent) and Chittagong (from 39.2 to 37.3 percent) divisions since the 1998 RSDP baseline survey. In the non-project areas (non-RSDP areas), contraception use rates are slightly higher compared with the RSDP areas. Overall, 49.4 percent currently married women of non-RSDP areas are current users of a contraceptive method, which is 2.4 percentage point (49.4-47.0) higher than of the project area. Use of any modern (41.6 percent) and traditional methods (7.8 percent) are also higher in non-project areas.

## **Trends in Contraceptive Use**

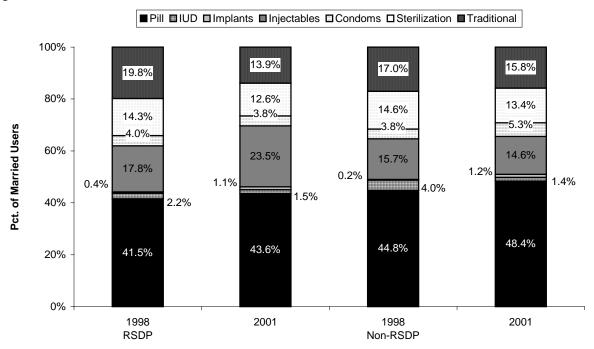
Since the 1998 Baseline Survey, contraceptive use of any method has increased by 1.3 percentage points, from 45.5 to 47.0 percent in 2001 RSDP evaluation survey. The use rate of any contraceptive method in non-RSDP areas increased by 4.1 percentage points, from 45.3 percent to 49.4 percent of currently married women. The increase in the non-RSDP areas was almost three times higher (4.1 percentage point vs. 1.5 percentage point) than that observed in RSDP project areas.

The size of the change in use of modern contraception was similar in RSDP and non-RSDP areas, indicating that whatever supply-side factors affected use in RSDP areas were mirrored elsewhere. In RSDP areas, use of modern contraception increased from 36.5 percent of currently married women in 1998 to 40.4 percent of currently married women in 2001. In non-RSDP areas, use of modern contraception increased from 37.6 percent of currently married women in 1998 to 41.6 percent of currently married women in 2001.

Current use rate of contraception varies directly with the number of living children. A currently married woman with more than 2 children tends to use any contraceptive method more than those with 2 or fewer children (Table 5.3 A).

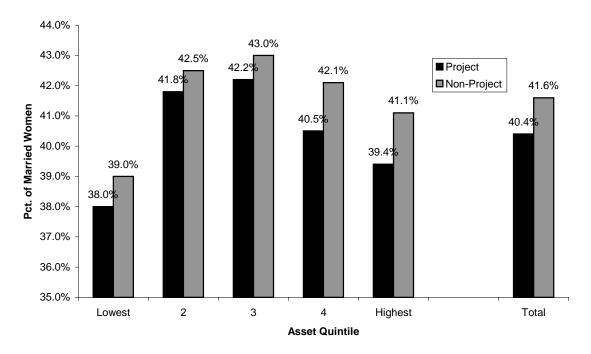
The mix of methods also changed slightly between surveys (Figure 5.1). In RSDP areas, there were increases in the share for both the Pill (41.5 percent to 43.6 percent) and injections (17.8 percent to 23.5 percent). The share of sterilizations fell in RSDP areas from 14.3 percent to 12.6 percent. The largest decline in share was for traditional methods, from 19.8 percent to 13.9 percent of the total. In non-RSDP areas, the increases were primarily in use of the Pill (44.8 percent to 48.4 percent) and male condoms (3.8 percent to 5.3 percent).

Figure 5.1 Trends in Method Mix



It is generally the case that wealthier individuals are more likely to use basic health services than individuals of lower wealth. However, with respect to use of modern contraception, such differentials by socioeconomic status do not seem apparent in the 2001 RSDP Evaluation Survey data. Looking only at these simple crosstabulations, women in RSDP project areas in the lowest asset quintile are in fact less likely to use modern contraception than women in higher asset quintiles (Figure 5.2). Thirty eight percent of women in the lowest asset quintile were using modern contraception as compared with 39.4 percent of women in the highest quintile. However, it is clear the higher contraceptive prevalence of the second and third poorest quintiles.

Figure 5.2 Modern Contraceptive Use by Married Women by Asset Quintile, Project and non-Project Areas



# **5.3** Use of Contraception by Married Adolescents

The sample included ever-married women age 10 to 49 years. To see the contraception behavior among the adolescent women, current use of contraception by married adolescent women age 10 to 19 years has been estimated and presented in Table 5.3B. Table values show that CPR among the married adolescent women is higher (32.4 percent) in non-RSDP areas compared with RSDP project areas (29.3 percent). Use of any modern methods is comparable in both the areas, but use of traditional methods is about two times higher in non-RSDP areas (3.1 percent in RSDP and 5.6 percent in non-RSDP areas).

An analysis of contraception use by age for married adolescent women shows that use of any method is higher among the older adolescents of age group 15-19 in the high performing Khulna/Barisal, Rajshahi, and Dhaka divisions. However, the trend is opposite in the low performing Chittagong and Sylhet divisions. Oral pill is by far the most popular method of contraception among the married adolescent women in both the areas.

Table 5.3A Current use of contraception by age and background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, RSDP and non-RSDP areas

De deserre d	Using	Using Any Modern				Modern	Method			Using Any Traditional	Tr	aditional Metho	od	Not Using		
Background	Any Method	Method	Pill	IUD	Injection	Male Condom	Female Sterilization	Male Sterilization	Implants	Method	Periodic Abstinence	Withdrawal	Folk Method	a Method	Total	Number
Age					I.				l .							
10-14	22.6	16.9	13.5	0.0	0.7	2.5	0.0	0.3	0.0	5.7	4.5	1.2	0.0	77.4	100.0	174
15-19	30.1	27.4	17.3	0.5	7.7	1.7	0.0	0.1	0.1	2.7	2.1	0.3	0.3	69.9	100.0	1,355
20-24	42.3	38.4	23.3	0.8	11.3	1.7	0.6	0.1	0.6	3.9	3.3	0.4	0.2	57.7	100.0	1,639
25-29	52.0	47.1	26.3	0.8	14.2	1.9	3.2	0.3	0.4	4.9	3.6	0.8	0.5	48.0	100.0	1,660
30-34	56.9	49.0	23.9	1.0	14.8	2.5	5.8	0.3	0.8	7.8	5.8	1.5	0.5	43.1	100.0	1,514
35-39	56.9	46.7	20.9	0.6	11.0	1.5	10.7	1.1	0.9	10.3	8.2	1.4	0.6	43.1	100.0	1,226
40-44	49.5	39.3	11.5	0.7	9.0	1.5	15.3	1.0	0.4	10.1	8.1	1.5	0.5	50.5	100.0	886
45-49	41.1	29.2	6.3	0.7	5.1	1.1	15.2	1.0	0.0	12.0	10.4	0.9	0.7	58.9	100.0	531
Domains																
Rural - Chittagong	37.3	32.4	15.4	0.4	9.4	1.8	4.6	0.1	0.7	4.9	3.9	0.4	0.6	62.7	100.0	1,280
Rural - Khulna/Barisal	64.5	54.2	24.5	1.0	15.9	2.9	8.6	0.7	0.6	10.3	7.6	1.8	0.9	35.5	100.0	668
Rural - Dhaka	48.9	41.0	21.1	0.5	11.5	1.9	5.5	0.1	0.3	7.9	6.4	1.1	0.4	51.1	100.0	3,221
Rural - Rajshahi	62.1	56.5	30.3	1.1	13.8	1.7	7.9	1.0	0.7	5.6	4.5	0.7	0.4	37.9	100.0	2,086
Rural - Sylhet	25.5	20.5	9.1	0.9	6.2	1.3	2.2	0.4	0.4	5.0	3.7	1.1	0.2	74.5	100.0	1,729
Highest educational level																
No education	48.0	41.9	19.1	0.7	12.9	0.6	7.5	0.7	0.5	6.0	4.9	0.6	0.5	52.0	100.0	5,270
Primary	45.3	37.4	20.3	0.6	9.9	1.7	3.9	0.2	0.7	7.9	6.2	1.2	0.4	54.7	100.0	2,101
Secondary	45.2	38.5	25.1	0.9	6.7	4.3	1.4	0.0	0.2	6.7	4.6	1.9	0.2	54.8	100.0	1,457
Higher secondary	52.9	46.3	25.3	0.0	2.1	17.7	0.0	0.0	1.2	6.6	6.6	0.0	0.0	47.1	100.0	101
College/University	50.1	46.3	13.8	0.0	9.7	22.8	0.0	0.0	0.0	3.7	2.1	1.7	0.0	49.9	100.0	56
Number of living children																
No living children	12.3	9.3	5.6	0.0	0.2	2.6	0.7	0.3	0.0	2.9	2.4	0.6	0.0	87.8	100.0	975
1-2	47.3	42.2	24.0	1.0	10.6	1.9	4.0	0.5	0.4	5.1	3.9	0.9	0.3	52.5	100.0	3,508
3-4	56.9	49.9	23.4	0.8	14.3	1.6	8.7	0.3	0.6	7.0	5.7	0.9	0.5	43.1	100.0	2,877
5+	49.5	38.4	16.1	0.5	12.6	1.4	6.2	0.7	0.7	11.1	8.7	1.5	1.0	50.5	100.0	1,625
RSDP	47.0	40.4	20.4	0.7	11.0	1.8	5.5	0.4	0.5	6.5	5.2	0.9	0.4	53.0	100.0	8,986
Non-RSDP	49.4	41.6	23.9	0.7	7.2	2.6	6.5	0.1	0.6	7.8	5.8	1.4	0.6	50.6	100.0	2,921

Table 5.3B Current use of contraception by married adolescents

Percent distribution of currently married adolescents by contraceptive method currently used by city type and age, RSDP and non-RSDP areas

					Mod	lern method				Trad	itional method				
Background Characteristics	Any method	Total modern method	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Total traditional method	Periodic Abstinence	Withdrawal	Other	Not Using	Total	Number
Chittagong 10-14 15-19	29.2 18.5	29.2 16.7	0.0 0.0	26.0 6.8	0.0	0.0 8.6	0.0 0.0	3.2 1.4	0.0 1.8	0.0 1.4	0.0 0.0	0.0 0.4	70.8 81.5	100.0 100.0	19 171
Khulna/Barisal 10-14 15-19	32.5 48.7	32.5 44.3	2.6 0.0	20.3 30.4	0.0	6.7 11.9	0.0 0.0	2.8 2.1	0.0 4.5	0.0 3.0	0.0 0.0	0.0 1.5	67.5 51.3	100.0 100.0	17 110
Dhaka 10-14 15-19	19.9 31.8	11.4 27.7	0.0 0.0	8.4 18.8	0.0 0.9	0.0 6.7	0.0 0.2	3.0 1.1	8.4 4.1	5.6 3.1	2.8 0.7	0.0 0.4	80.1 68.2	100.0 100.0	76 499
Rajshahi 10-14 15-19	27.3 41.6	17.7 39.0	0.0 0.3	17.7 24.3	0.0 0.6	0.0 10.0	0.0 0.3	0.0 3.5	9.6 2.6	9.6 2.3	0.0 0.3	0.0 0.0	72.7 58.4	100.0 100.0	36 330
Sylhet 10-14 15-19	12.7 11.2	12.7 11.2	0.0 0.0	8.6 6.6	0.0	0.0 4.2	0.0 0.0	4.1 0.4	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	87.3 88.8	100.0 100.0	25 245
Total RSDP	29.3	26.2	0.1	16.9	0.4	6.9	0.1	1.8	3.1	2.4	0.4	0.3	70.7	100.0	1,529
non-RSDP	32.4	26.8	0.0	20.9	0.4	4.4	0.3	0.9	5.6	4.5	1.2	0.0	67.6	100.0	464

Note: If more than one method is used only the most effective method is considered in this tabulation.

#### **5.4 Sources of Supply of Family Planning Methods**

The percent distribution of current users of modern contraceptive methods by most recent sources of supply, according to specific method and project/non-project area can be seen in Tables 5.4A and 5.4B. To sustain the current use rate and/or for accelerating the use rate, constant and easily accessible supply is desirable. In rural areas of Bangladesh, the probable sources of supply are public sector, RSDP NGO, other NGO, Private Medical Sector, and other private sources.

#### **Project versus Non-Project Areas**

In RSDP project areas (table 5.4A), the main supply source is the RSDP NGO facilities and providers. They include static and satellite clinics and depotholder (44.0 percent), followed by public sector (33.5 percent), private medical sectors such as private clinics/doctors and pharmacy (14.7 percent), other private sources such as shops (5.6 percent); and other NGO facilities (1.8 percent).

Among the RSDP supply sources, depotholders are the main source of supply for pill and condoms; injectables are mostly available at satellite clinics; and static clinics are the main source for implants/Norplant's and IUD insertion. Among the public sector sources, the major sources of supply of family planning (FP) methods are: Family Welfare Assistant for pill (18.2 percent), Thana Health Complex for condom (3.5 percent), female sterilization (57.4 percent), male sterilization (60.1 percent) and implants (46.8 percent), and Family Welfare Center for IUDs (33.8 percent). Other NGO sources have a low participation in the market. However, Pharmacy (24.0 percent of pill and 36.1 percent of condom) and shop (23.2 percent of condom supply) remain the dominant sources for pill and condom supply in RSDP project areas.

As expected, public sector sources are the main suppliers of all types of family planning methods in non-RSDP areas (Table 5.4B). But even in non-RSDP areas, pharmacies are the major sources of pills (31 percent) and condoms (44 percent). Shops also supply almost one-fourth (23.7 percent) of the total condom use in non-RSDP areas.

In RSDP areas, RSDP providers have become a larger supplier of contraceptive services, increasing from 33.3 percent in 1998 to 44.0 percent of currently married modern contraceptive users in 2001 (Figure 5.3A). The largest increase in share was experienced by RSDP satellite clinics, from 13.2 percent to 22.3 percent. The share for RSDP depotholders increased slightly (from 16.8 percent to 17.4 percent), as did the share for RSDP static clinics (from 3.3 percent to 4.3 percent). This increase in supply by RSDP providers corresponded to a decrease in market share by public providers, which fell from 47.1 percent to 33.5 percent of currently married modern contraceptive users. Pharmacies have experienced an increasing share, from 12.0 to 14.7 percent of currently married modern contraceptive users.

Since the 1998 baseline survey, the market share of RSDP sources in supplying pill has increased by 5.7 percentage points, from 35.5 percent in 1998 baseline survey to 41.2 percent in the 2001 RSDP evaluation survey. The share in condom supply has increased from 26.5 percent in 1998 to 29.7 percent in 2001; the share in IUD supply has increased from 14.4 percent to 41.7 percent (though the absolute number of IUD users is small); and the share in injectable methods increased from 59.7 percent in 1998 to 78.0 percent in 2001.

In non-RSDP areas, the share of public providers has also fallen, but by a smaller amount - from 80.6 percent of contraceptive users to 67.6 percent of contraceptive users. Pharmacies/private medical have experienced the largest increases in share, from 15.8 to 21.0 percent of contraceptive users.

Table 5.4A Source of supply – RSDP

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to specific method, RSDP total

	Modern method								
	D:11	шъ	T	Male	Female	Male	T14.	T.4.1	
Source of method	Pill	IUD	Injection	condom	Sterilization	Sterilization	Implants	Total	
PUBLIC SECTOR	22.3	58.3	19.2	8.7	95.4	94.5	77.0	33.5	
Hospital/Medical college	0.1	1.7	0.2	0.9	20.4	24.5	17.1	3.6	
Family welfare centre	2.2	33.8	9.2	1.7	13.5	4.2	5.5	6.3	
Thana health complex	1.1	17.7	3.1	3.5	57.4	60.1	46.8	11.4	
MCWC	0.1	0.0	0.4	0.3	3.9	2.8	5.0	0.8	
Rural Dispensary/comm. Clinic	0.5	0.0	0.5	0.0	0.3	2.9	0.0	0.5	
Satellite clinic/EPI outreach clinic	0.2	3.3	2.5	0.0	0.0	0.0	0.0	0.8	
FWA	18.2	1.9	3.2	2.2	0.0	0.0	2.6	10.1	
NIPHP NGO	41.2	41.7	78.0	29.7	0.0	2.6	19.4	44.0	
Static clinic	2.6	25.4	8.0	3.3	0.0	2.6	19.4	4.3	
Satellite clinic	6.1	16.3	68.9	5.7	0.0	0.0	0.0	22.3	
Depotholder	32.4	0.0	1.0	20.6	0.0	0.0	0.0	17.4	
OTHER NGO	2.7	0.0	1.1	0.7	0.8	0.0	0.0	1.8	
Hospital	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	
NGO clinic	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.1	
Satellite clinic	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.3	
Fieldworker	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
Depotholder	1.8	0.0	0.0	0.7	0.0	0.0	0.0	0.9	
PRIVATE MEDICAL SECTOR	24.2	0.0	1.4	36.4	3.7	2.9	3.6	14.7	
Private clinic/doctor	0.1	0.0	0.4	0.3	3.7	2.9	1.1	0.8	
Traditional doctor	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
Pharmacy	24.0	0.0	0.9	36.1	0.0	0.0	2.5	13.9	
OTHER PRIVATE	9.1	0.0	0.0	23.8	0.0	0.0	0.0	5.6	
Shop	7.4	0.0	0.0	23.8	0.0	0.0	0.0	4.7	
Friends/relatives	1.7	0.0	0.0	0.6	0.0	0.0	0.0	0.9	
Other	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of Women	1,831	65	992	161	532	38	44	3,664	

<u>Table 5.4B Source of supply – Non-RSDP</u>

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to specific method, non-RSDP areas

				Мо	dern method			
Source of Method	Pill	IUD	Injection	Male condom	Female Sterilization	Male Sterilization	Implants	Total
PUBLIC SECTOR	57.9	67.8	83.3	28.6	96.6	100	95	67.6
Hospital/Medical college	0.0	3.9	0.4	1.1	15.3	53.7	11.8	3.1
Family Welfare Centre	10.2	53.0	46.5	6.1	12.1	0.0	5.0	17.2
Thana health complex	0.9	6.9	7.9	1.0	66.2	46.3	68.5	14.0
MCWC	0.0	0.0	0.0	0.0	3.0	0.0	9.7	0.6
Rural Dispensary/Comm. Clinic	1.3	3.9	2.7	1.7	0.0	0.0	0.0	1.4
Satellite clinic/EPI outreach clinic	2.3	0.0	14.3	1.2	0.0	0.0	0.0	3.8
FWA	43.2	0.0	11.6	17.4	0.0	0.0	0.0	27.6
NIPHP NGO	1.7	25.2	15.5	2.8	0.4	0.0	5.0	4.4
Static clinic	0.9	18.2	10.0	2.0	0.4	0.0	5.0	2.8
Satellite clinic	0.0	7.0	5.5	0.0	0.0	0.0	0.0	1.1
Depotholder	0.8	0.0	0.0	0.9	0.0	0.0	0.0	0.5
OTHER NGO	1.1	0.0	0.0	0.9	1.8	0.0	0.0	1.0
Hospital	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.2
NGO clinic	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.1
Satellite clinic	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Fieldworker	0.8	0.0	0.0	0.9	0.0	0.0	0.0	0.5
Depotholder	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRIVATE MEDICAL SECTOR	31.5	0.0	0.8	44.0	1.1	0.0	0.0	21.0
Private clinic/doctor	0.5	0.0	0.0	0.0	1.1	0.0	0.0	0.5
Traditional doctor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmacy	31.0	0.0	0.8	44.0	0.0	0.0	0.0	20.5
OTHER PRIVATE	7.2	0.0	0.0	23.7	0.0	0.0	0.0	5.6
Shop	6.6	0.0	0.0	23.7	0.0	0.0	0.0	5.2
Friends/relatives	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Other	0.6	7.0	0.4	0.0	0.0	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	697	22	211	77	201	4	17	1,229

Figure 5.3A Distribution of Sources of Contraceptive Supply in RSDP Areas, 1998 and 2001

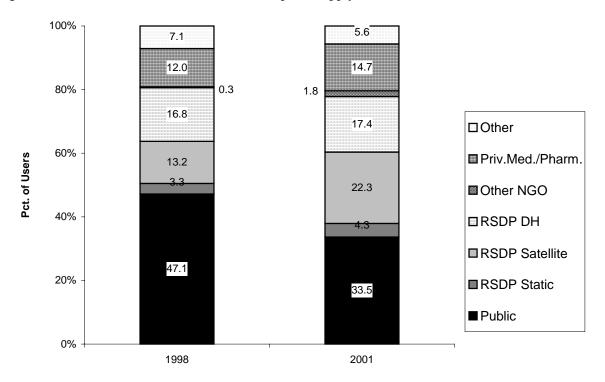
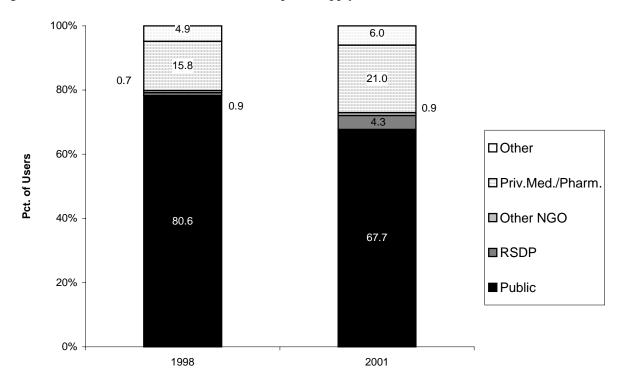


Figure 5.3B Distribution of Sources of Contraceptive Supply in Non-RSDP Areas, 1998 and 2001



While the RSDP program is clearly located in areas of lower socioeconomic status, proximity is no assurance that the poor will use available health services. One major success of the RSDP program is that its services are in fact more likely to be used by the poor than by the non-poor. Among contraceptive users, women in lower asset quintiles are more likely to use RSDP sources for their modern contraception than women in higher asset quintiles (Table 5.5). This is true principally for use of satellite clinics. Approximately 28 percent of women in the lowest asset quintile use RSDP satellite clinics for modern contraception, as compared with only 14 percent of women in the highest asset quintile. Among current contraceptive users, women in the highest asset quintile were slightly more likely to use RSDP static clinics (5.1 percent) than women in the lowest asset quintile (3.2 percent). RSDP depotholders were used by approximately one in six women. There were little differences in the use of depotholders by socioeconomic status. Women in the highest asset quintile were most likely to use pharmacies (27.8 percent).

Table 5.5 Source of Modern C	ontraception by	Asset Quin	<u>tile</u>			
Percent distribution of source	es of modern co	ontraceptive	method by a	sset quintile,	RSDP Pro	ject Areas
Source		As	sset Quintile			
	Lowest	2	3	4	5	Total
Government						
Hospital	4.8	3.0	2.8	2.7	4.3	3.5
Family Welfare Centre	7.1	7.2	5.8	6.3	4.6	6.3
Thana Health Centre	14.0	11.2	12.2	9.2	6.7	10.9
MCWC	1.0	1.0	1.0	0.7	0.1	0.8
Rural Dispensary	0.7	0.2	0.4	0.4	0.7	0.5
Satellite Clinic	1.1	1.4	0.8	0.4	0.4	0.8
FWA	11.3	10.6	9.3	10.3	9.2	10.2
RSDP						
Static Clinic	3.2	4.4	4.1	5.4	5.1	4.4
Satellite Clinic	28.2	26.4	22.2	19.1	13.5	22.5
Depotholder	15.3	18.3	19.3	19.0	14.9	17.5
NGO						
Hospital	0.1	0.0	0.0	0.0	0.2	0.1
NGO clinic	0.0	0.0	0.2	0.2	0.0	0.1
Satellite Clinic	0.2	0.1	0.4	0.5	0.4	0.3
Fieldworker	0.3	0.3	0.6	0.3	0.4	0.4
Depotholder	1.0	1.0	1.0	0.9	0.7	0.9
Private						
Private Doctor/Clinic	0.0	0.4	0.4	0.9	2.8	0.8
Traditional Doctor	0.0	0.1	0.0	0.0	0.2	0.1
Pharmacy	8.2	9.1	12.6	16.8	27.8	14.0
Shop	2.1	4.2	5.3	6.0	6.9	4.8
Friends/Family	1.4	0.4	1.2	0.6	0.9	0.9
Other	0.2	0.6	0.4	0.5	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

# 5.5 Knowledge of Sources among Non-users

Currently married women who for some reason do not currently use a contraceptive method were asked whether they are aware of sources of supply of family planning methods. Table 5.6 gives the percent distribution of women who are currently not using any family planning method by knowledge of source of supply. It is evident from the table that RSDP sources are most known (44.2 percent) to the respondents of RSDP areas and public sector sources are most known (72 percent) to the respondents of non-RSDP areas. Knowledge of RSDP sources of supply is better in Khulna/Barisal (58 percent), Rajshahi (53.2 percent) and Dhaka (47.6 percent) divisions, compared with Chittagong (38 percent) and Sylhet (35.3 percent) divisions.

<u>Table 5.6 Knowledge of source for non-users</u>
Percent distribution of women who do not currently use a contraceptive method by knowledge of source of supply, by division and RSDP/non-RSDP areas

Source of Method	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
PUBLIC SECTOR	36.6	23.8	29.9	30.0	38.3	33.0	72.0
Hospital/Medical college	1.9	0.6	0.3	0.9	2.9	1.4	0.4
Family welfare centre	10.2	5.0	9.3	11.7	10.9	10.1	24.0
Thana health complex	19.2	10.1	12.4	8.7	14.0	13.2	17.6
MCWC	0.2	0.7	0.1	0.5	0.7	0.4	0.3
Rural Dispensary/Comm. clinic	0.4	1.3	0.3	0.7	0.5	0.5	1.5
Satellite clinic/EPI outreach							
clinic	0.7	1.4	0.6	0.0	1.0	0.7	3.5
FWA	4.0	4.7	6.8	7.4	8.3	6.8	24.6
NIPHP NGO	38.0	58.0	47.6	53.2	35.3	44.2	5.4
Static clinic	1.7	9.7	7.1	6.1	6.5	6.0	4.4
Satellite clinic	18.7	22.2	17.4	19.3	19.1	18.7	0.4
Depotholder	17.6	26.1	23.1	27.8	9.7	19.5	0.6
OTHER NGO	0.8	1.4	0.5	1.2	1.5	1.0	1.2
Hospital	0.0	0.0	0.1	0.0	0.0	0.0	0.1
NGO clinic	0.0	0.2	0.1	0.1	0.5	0.2	0.4
Satellite clinic	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Fieldworker	0.3	0.3	0.1	0.2	0.6	0.3	0.7
Depotholder	0.5	0.9	0.2	0.7	0.4	0.4	0.0
PRIVATE MEDICAL SECTOR	6.1	3.5	5.0	2.5	5.4	4.8	6.2
Private clinic/doctor	0.2	0.0	0.2	0.4	0.5	0.3	0.3
Traditional doctor	0.0	0.2	0.1	0.0	0.2	0.1	0.1
Pharmacy	5.9	3.3	4.7	2.1	4.7	4.4	5.7
OTHER PRIVATE	1.0	2.2	1.4	2.2	1.3	1.5	1.7
Shop	1.0	2.2	1.4	2.2	1.3	1.5	1.7
Friends/relatives	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Other	0.0	0.0	0.7	0.1	0.2	0.3	0.6
DK	17.4	10.9	14.9	10.9	18.0	15.3	12.9
Missing	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	883	276	1,828	916	1,469	5,371	1,666

### **5.6 Contraceptive Discontinuation Rates**

Rates of discontinuation of contraceptive methods were calculated from data collected in the contraceptive calendar. Contraceptive discontinuation rates are the proportion of users of a method who discontinue a method within 12 months of starting use. The contraceptive calendar tracked episodes of contraceptive use by method by calendar months for the five years preceding the survey. The discontinuation rates calculated here refer only to episodes of contraceptive use beginning in the five year period preceding the survey up to three months prior to the survey. The two months prior to the survey are omitted in order to avoid under-estimating method failure from as yet unnoticed pregnancies. When a break in contraceptive use was noted, women were asked the principal reason for the contraceptive discontinuance. Method discontinuation because of switching to a different modern method is excluded from the discontinuation rate calculations.

The overall discontinuation rate for the modern methods listed below, as well as for periodic abstinence and withdrawal, was 41.6 percent (Table 5.7A). The rate was highest for condom users. Sixty-four percent of condom users discontinued that method. The discontinuation rate was lowest for periodic abstinence (31.4 percent). Discontinuation rates were 42.1 percent for pills, 42.8 percent for IUDs, and 42.1 percent for Injectables.

Table 5.7A F	First-year contrac	eptive discont	inuation rates

Proportion of contraceptive users who discontinue use of a method by 12 months after beginning its use, by reason for discontinuation, according to specific method, RSDP Areas

		Reason Desire to	for disconti Side	nuation	
Method	Method	become	effects/	Other	All
discontinued	failure	pregnant	health	Other	reasons
Pill	2.7	8.8	9.2	21.4	42.1
IUD	0.0	3.8	12.0	27.0	42.8
Injectables	0.3	4.6	13.0	24.3	42.1
Condom	6.1	13.3	2.0	42.7	64.2
Periodic abstinence	10.2	7.6	0.1	13.4	31.4
Total	3.0	7.5	8.5	22.5	41.6

Note: Table is based on episodes of contraceptive use that began 3-59 months prior to the survey.

Table 5.7B shows discontinuation rates for women who discontinue contraceptive methods by 12 months from beginning of use for three modern contraceptive methods – pills/oral contraceptives, IUDs, and Injectables – by division domain and RSDP and non-RSDP areas. Pills have a similar discontinuation rates in both RSDP and non-RSDP areas, but the discontinuation rate for injectables in non-RSDP areas (49.4 percent) is higher than the rate in RSDP areas (42.1 percent). For all methods (figure 5.4), discontinuation rates are highest in Chittagong (47.0 percent) and Sylhet (47.0 percent) and lowest in Khulna/Barisal (38.2 percent) and Rajshahi (35.8 percent).

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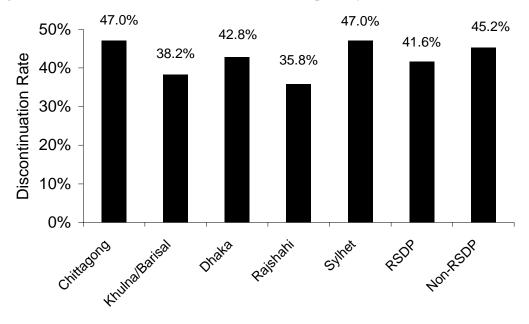
<sup>&</sup>lt;sup>4</sup> The reasons for discontinuation included the following: infrequent sex/husband away; method failure/became pregnant; wanted to become pregnant; husband disapproved; wanted a more effective method; health concerns; side effects; lack of access; cost; inconvenient to use; fatalistic; entered a period of amenorrhea; marital dissolution; and other.

Table 5.7B First-year discontinuation rates for divisions and project/non-project areas

Percentage of contraceptive users who discontinue use of a method within 12 months after beginning its use, by division and RSDP/ non-RSDP

	Pill/Oral Contraceptives	IUDs	Injectables
Chittagong	50.2	55.5	44.5
Khulna/Barisal	37.8	59.3	34.4
Dhaka	44.4	48.8	42.6
Rajshahi	33.2	33.3	39.2
Sylhet	53.0	34.1	49.1
Total RSDP	42.1	42.8	42.1
Total Non-RSDP	41.8	40.1	49.4

Figure 5.4 Discontinuation Rates for Modern Contraception by Division and RSDP/non-RSDP Areas



### 5.7 Reasons for Discontinuing Contraceptive Method

Currently married women of RSDP and non-RSDP areas, who are past users of family planning methods but not currently using any method, were asked to specify the reasons for discontinuing contraceptive methods. Table 5.8 gives the distribution of discontinuations of contraceptive methods in the five years preceding the 2001 RSDP evaluation survey by main reason for discontinuation, according to specific methods.

Table 5.8 shows that *side effects* (36.3 percent) and *desire to become pregnant* (24.4 percent) contributed 60.7 percent for discontinuation. The other main reasons for discontinuing contraceptive methods are *became pregnant while using* (9.8 percent), *health concerns* (7.1 percent), *infrequent sex/husband away* (5.2 percent), *husband disapproved the method* (4.5 percent) and *inconvenient to use* (4.4 percent).

It is interesting to note that *side effects* (37.7 percent) and *desire to become pregnant* (28.5 percent) were the two main reasons for discontinuation of pill use. *Side effects* (52.5 percent) and *desire to become pregnant* (13.1 percent) were also the main reasons for discontinuing IUD use. Almost fifty-eight percent discontinued injections due to *health concerns*. One-third (33.9 percent) discontinued using condom because *husband disapproved its use*. More than half (61.8 percent) of the past implant users dropped its use because of *side effects*.

# Table 5.8 Reasons for discontinuing contraceptive methods

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason for discontinuation, according to specific method, RSDP areas

				ν	lethod Dis	continuat	ion			
					Male					
Reason for Discontinuation	Pill	IUD	Inication	Condom	Sterili- zation	With- drawal	Periodic Abstinence	Implanta	Other	Total
Reason for Discontinuation	PIII	100	Injection	Condon	zation	urawai	Absumence	Implants	Other	Total
Infrequent sex/husband away	6.6	2.6	2.6	4.7	00	18.6	2.8	0.0	0.0	5.2
Became pregnant while using	8.8	0.8	1.4	11.3	0.0	11.1	35.7	0.0	63.4	9.8
Desire to become pregnant	28.5	13.1	14.5	23.5	0.0	27.1	29.4	11.7	0.0	24.4
Husband/ partner disapproved	1.5	2.0	1.2	33.9	0.0	15.3	8.6	0.0	0.0	4.5
Wanted more effective method	2.7	0.9	10.7	5.1	0.0	21.5	14.9	0.0	5.3	4.0
Health concerns	7.0	12.8	57.9	3.8	0.0	0.6	0.3	14.1	9.4	7.1
Side effects	37.7	52.5	3.7	3.5	0.0	0.0	0.0	61.8	5.0	36.3
Lack of access/availability	0.6	1.1	0.3	0.3	0.0	1.3	0.2	5.7	0.0	1.3
Cost too much	0.3	0.0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Inconvenient to use	4.6	9.2	0.2	12.8	0.0	3.2	3.8	0.0	0.0	4.4
Fatalistic	0.3	0.0	2.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Difficult to get pregnant/										
menopausal	0.6	0.9	0.2	0.3	0.0	1.2	2.9	0.0	6.4	1.2
Marital dissolution/separation	0.4	2.3	2.5	0.3	100.0	0.0	0.8	0.0	0.0	0.4
Other	0.4	1.7	0.0	0.0	0.0	0.0	0.1	6.7	10.4	0.9
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,715	130	1,171	323	1	86	478	18	18	4,941

### CHAPTER 6. INFANT AND CHILD MORTALITY

This chapter reports information on levels, trends, and differentials in infant, child and under-five mortality. The data were compiled from the birth histories given by ever-married women. The birth histories included information on each live birth, whether or not births were twins, the sex of the child, the month and year of birth, whether or not the child still lives with the mother, and the age at death if the child died. Ages at death were recorded in days if the child died in the first month of life, or in months if the child died before 24 months of age.

Mortality rates were calculated by direct methods and are defined as follows (per 1,000 live births):

Neonatal mortality rate: The number of children dying in the first month of life

Postneonatal mortality rate: The number of children dying after the first month of life but before the first

birthday

Infant mortality rate: The number of children dying before the first birthday

Child mortality rate: The number of children dying after the first birthday but before the fifth

birthday

Under-five mortality rate: The number of children dying before the fifth birthday.

The mortality rates are calculated for each of the survey domains (Chittagong, Khulna/Barisal, Dhaka, Rajshahi, Sylhet) and by RSDP and non-RSDP areas. Rates are also calculated for different covariates such as education levels, birth order, and birth spacing.

Trends in mortality rates can be examined by looking at rates in different five-year intervals preceding the survey: 0-4 years prior to the survey, 5-9 years prior to the survey, 10-14 years prior to the survey, and 15-19 years prior to the survey.

# **6.1 Assessment of Data Quality**

Considerable effort was made during the training of interviewers to minimize any errors that might lead to age heaping in reports of mortality. Interviewers were instructed to probe for exact ages when dates corresponded to common heaping dates. For example, if a child was reported to have died at age one year, interviewers were instructed to ask if the child died at exactly one year or whether the child died before one year. Such heaping may bias infant mortality downwards, transferring infant deaths to child deaths.

In these data, there is some evidence of age heaping at 6, 12 and 18 months. There is also evidence of age heaping at 9 months for female children. While neonatal mortality results are not presented here, there is also some evidence of age heaping at 7 and 15 days.

# **6.2 Early Childhood Mortality Rates**

In the five-year period preceding the survey, the infant mortality rate in RSDP areas was 77 deaths per 1,000 live births (Table 6.1). This contrasts with a slightly lower rate of 70.5 deaths to children under age 1 per 1,000 live births in non-RSDP areas. In fact, all mortality rates were higher in RSDP areas than in non-RSDP areas. For the five-year period preceding the survey, child mortality was 28.9 deaths per 1,000 live births in RSDP areas as compared with 24 deaths per 1,000 live births in non-RSDP areas. Under 5 mortality was 103.4 deaths per 1,000 live births in RSDP areas as compared with 93 deaths per 1,000 live births in non-RSDP areas.

Over the past two decades, early childhood mortality rates have been declining in both RSDP and non-RSDP areas. However, the decline has been sharper in RSDP areas, thereby closing the gap between RSDP and non-RSDP areas. The gap for under-five mortality between RSDP and non-RSDP was 22.7, 29.5, 10.1, and 10.5

deaths in the 15-19, 10-14, 5-9 and 0-4 periods preceding the survey respectively. Results for the period 15-19 years prior to the survey should be taken with caution, however, as reporting errors increase for earlier periods.

Interpreting the reasons and the possibility that formerly under-served areas are becoming better served by essential health services will be the subject of subsequent analyses.

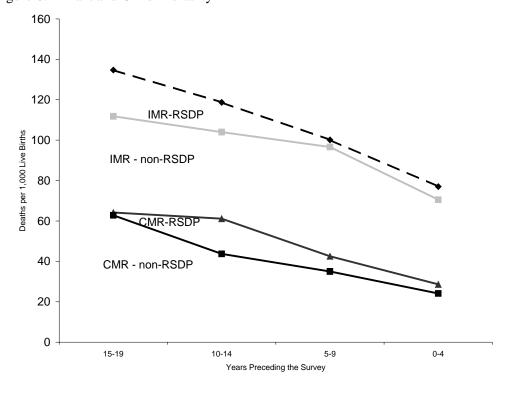
### Table 6.1 Early childhood mortality rates

Infant, child, and under-five mortality rates for five-year periods preceding the survey, RSDP and Non-RSDP areas

Years preceding	Infant mortality	Child mortality	Under-five mortality
the survey	$(_{1}q_{0})$	$(_{4}q_{1})$	$(_{5}q_{0})$
RSDP Areas			
0-4	77.0	28.6	103.4
5-9	100.1	42.5	138.3
10-14	118.7	61.1	172.6
15-19	134.7	64.2	190.3
Non-RSDP Areas			
0-4	70.5	24.1	92.9
5-9	96.6	35.0	128.2
10-14	104.0	43.7	143.1
15-19	111.8	62.8	167.6

Figure 6.1 visually represents the trend in infant and child mortality for RSDP and non-RSDP areas for different time period preceding the survey.

Figure 6.1 Infant and Child Mortality



#### 6.3 Early Childhood Mortality by Regions and Socioeconomic Characteristics

Infant mortality rates differ by a variety of regional and socioeconomic characteristics. Using mortality rates for the 10 year period preceding the survey, infant mortality rates for RSDP areas are highest in Sylhet division (105.3 deaths per 1,000 live births) and lowest in Chittagong division (67.3 deaths per 1,000 live births). Child mortality, on the other hand, is highest in Chittagong (42.6 deaths per 1,000 live births) and lowest in Rajshahi (25.5 deaths per 1,000 live births) (Table 6.2).

Mortality is strongly associated with the educational attainment of a child's mother. In fact, children of women with no education are more than twice as likely to die before their first birthday as children of mothers with a university education. Child mortality is relatively uncommon for children of mothers with secondary education. Almost no children born to mothers of higher secondary education or above die during the same interval. In contrast, approximately 40 per 1,000 live births born to mothers with no education or primary education do not survive from their first to their fifth birthdays.

As stated above, mortality is higher in RSDP areas – areas that have reportedly been underserved – than in non-RSDP comparison areas. During the 10-year pre-survey period, infant mortality rates were five deaths per 1,000 live births higher in RSDP areas than non-RSDP areas; Child mortality rates were 6 deaths per 1,000 live births higher.

Table 6.2 Early childhood mortality rates by socioeconomic characteristics

Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, RSDP and non-RSDP areas

D1 1 .1	Infant mortality	Child mortality	Under-five mortality
Background characteristic	$(_{1}q_{0})$	$(_{4}q_{1})$	$(_{5}q_{0})$
Division			
Chittagong	67.3	42.6	107.1
Khulna/Barisal	74.9	30.7	103.4
Dhaka	98.7	38.8	133.6
Rajshahi	75.8	25.5	99.3
Sylhet	105.3	35.8	137.4
Mother's education			
No education	99.9	40.2	136.1
Primary	77.0	33.2	107.6
Secondary	58.5	12.5	70.2
Higher Secondary	36.2	0.0	36.2
University/College	49.3	0.0	49.3
Total RSDP	89.1	35.5	121.5
Total non-RSDP	84.3	29.7	111.5

#### 6.4 Demographic Characteristics and Mortality

Demographic characteristics are similarly associated with early childhood mortality. In most countries, boys tend to have higher mortality than girls during the first year of life. This is true in these data as well as shown in Table 6.3. Infant mortality in RSDP areas for boys is higher by 14.6 deaths per 1,000 live birth than for girls. The differential is not as wide in non-RSDP areas, where the infant mortality rate for boys is 88.1 versus 80.3 for girls. Child mortality, on the other hand, is higher for girls in both RSDP and non-RSDP areas. The differential is considerably higher in non-RSDP areas.

Children of younger mothers, those under the age of 20, are more likely to die before their first birthday than children of older mothers. For both RSDP and non-RSDP areas, the rate of infant mortality is approximately 15 to 20 deaths higher for children of mothers under the age of 20 than for older mothers.

A U-shaped relationship is observed between parity and mortality. First births face a higher risk of infant mortality than second and third births. Risk, however, increases at higher parity levels. The latter result likely reflects the effects of short birth intervals, as higher parity children are more likely to have short preceding birth intervals. Children born less than two years after the birth of a preceding child face a higher rate of infant mortality – a rate approximately 2.5 times higher than that for children born three years after the preceding birth. This effect dissipates over time, so that short-birth interval children who survive to their first birthday are only slightly more likely to experience mortality by their fifth birthday than longer birth-interval children. For children that survive to their first birthday, those who are lower-parity children have a higher likelihood of surviving than higher-parity children.

Table 6.3 Early childhood mortality rates by demographic characteristics

Infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, RSDP and non-RSDP areas

		RSDP		Non-RSDP			
Demographic characteristic	Infant mortality (1q <sub>0</sub> )	Child mortality (4q1)	Under-five mortality (5q0)	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)	
Sex of child							
Male	96.3	31.1	124.4	88.1	21.7	107.9	
Female	81.7	40.0	118.4	80.3	37.9	115.2	
Mother's age at birth							
<20	103.7	29.9	130.5	99.1	24.4	121.1	
20-29	81.1	37.8	115.9	76.8	35.7	109.8	
30-39	87.3	39.3	123.2	80.2	23.6	101.8	
40-49	78.2	16.1	93.0	83.4	0.0	83.4	
Birth order							
1	102.4	27.8	127.3	104.0	17.1	119.3	
2-3	73.4	31.9	103.0	61.8	26.0	86.1	
4-6	90.9	42.5	129.6	94.4	47.1	137.1	
7+	113.6	46.1	154.4	94.1	20.9	112.9	
Previous birth interval <sup>1</sup>							
<2 years	153.5	45.6	192.1	133.9	35.8	165.0	
2 years	91.5	43.6	131.2	74.4	42.8	114.0	
3 years	63.2	37.4	98.2	67.1	28.1	93.3	
4+ years	57.8	23.0	79.4	56.5	23.3	78.5	

<sup>&</sup>lt;sup>1</sup> Excludes first-order births

# CHAPTER 7. REPRODUCTIVE AND CHILD HEALTH

This chapter presents findings from the 2001 RSDP Evaluation Survey regarding issues of importance to reproductive and child health. Information was collected from sampled women on pregnancy-related complications, antenatal care and delivery assistance, postnatal care, immunization and child health care opportunities, and utilization of existing facilities. The findings are summarized below.

#### 7.1 Antenatal Care (ANC)

Antenatal care (ANC) is an important component of the Essential Service Package. It is the care or treatment that a pregnant woman should have during her pregnancy for protection of herself and the baby and/or safe delivery. Antenatal care is essential for detection and treatment of problems during pregnancy and can improve the timely and appropriate use of delivery care services.

A pregnant woman needs to visit health facilities/providers at certain intervals for antenatal check-ups. Tetanus toxoid (TT) vaccination is essential for the protection of the newborn from tetanus. Iron supplementation is also a component of antenatal care.

#### **Number and Timing of ANC Visits**

Ever married women who had a live birth in the five years preceding the survey were asked for the number of antenatal care visits for the most recent birth and the timing of the first visit. Table 7.1A gives the percentage of women who received ANC during their most recent live birth (if it occurred in the 12 months prior to the survey) with the timing of the first visit. The data show that 52.9 percent of women of RSDP project areas received no antenatal care during their most recent pregnancy. Only 15.7 percent had one visit, 10.6 percent went for 2 visits, 10.3 percent went for 3 visits, and 10.2 percent made 4 or more visits, giving an antenatal coverage rate of 46.8 percent in the RSDP project areas. In the non-RSDP areas, the ANC coverage rate was 39.4 percent, which was 7.4 percentage points lower than that of the RSDP areas. For those who made at least one ANC visit, the median number of visits was also calculated. In the RSDP project areas, the median number of visits was 1.7, identical to the number in the non-RSDP areas. The median number of visits was far fewer than the recommended 12 visits.

Table 7.1 also shows that ANC coverage was highest in Rajshahi (54.7 percent), followed by Sylhet (51.3) percent), Khulna/Barisal (49.6 percent), Dhaka (42.1 percent) and Chittagong (41.1 percent) divisions. The median number of visits was highest Sylhet division (1.9 visits) and lowest in Dhaka division (1.5 visits).

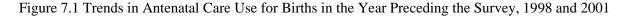
Information on the timing of first ANC visit, i.e. number of months pregnant at time of first ANC visit, is also available. In the RSDP project areas, 10.6 percent of women made their first ANC visit in the first four months of their last pregnancy, another 19.8 percent made their first visit during the fourth to fifth months of pregnancy and the remaining 16.5 percent had their first ANC visit after five months of pregnancy. Among those who made at least one ANC visit during their last pregnancy, the median months pregnant at the first visit was 5.5 months for the women of RSDP areas and 5.6 months for the women of non-RSDP areas. The median months of pregnancy at the first ANC visit by division varied from 5.2 to 5.8 months.

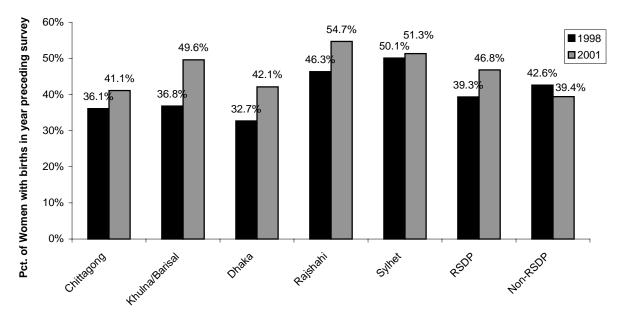
It may be noted that at the time of the 1998 RSDP Baseline Survey the antenatal care coverage for women who had a live birth in the one year preceding the survey was 39.3 percent in RSDP areas and 42.6 percent in non-RSDP areas (Figure 7.1). Compared with the 2001 RSDP Evaluation Survey results on ANC coverage, it appears that ANC coverage has increased by 7.5 percentage points in RSDP project areas but fell by 3.5 percentage points in non-RSDP areas from 1998 to 2001. The largest increases in antenatal coverage were observed in Khulna/Barisal – from 36.8 to 49.6 percent of women with births in the last year – and Dhaka – from 32.7 to 42.1 percent of women with births in the last year.

Table 7.1A Number of antenatal care visits and timing of first visit (live birth in last one year)

Percent distribution of women who had a live birth in the last one year preceding the survey by number of antenatal care (ANC) visits for the most recent birth, and by the timing of the first visit, by division and RSDP/non-RSDP areas

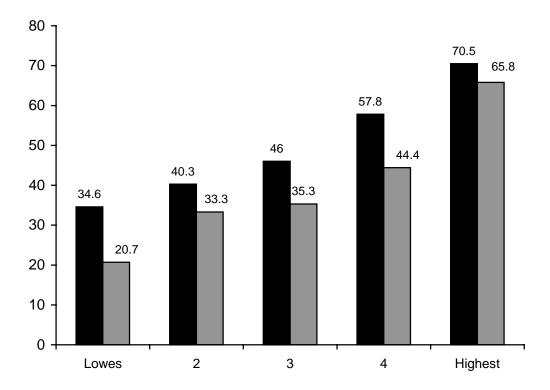
Number and timing of ANC visits	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non - RSDP
Number of ANC visits							
None	59.0	51.0	57.9	45.1	48.5	52.9	60.6
1	13.8	12.7	17.6	20.1	11.8	15.7	10.7
	9.3	16.1	7.5	10.0	14.6	10.6	11.8
2 3	7.5	9.0	9.4	12.8	11.8	10.3	6.6
4+	9.2	11.3	7.6	12.0	12.8	10.2	10.3
Don't know/missing	1.2	0.0	0.0	0.0	0.6	0.3	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median number of visits							
(for those with ANC)	1.7	1.7	1.5	1.7	1.9	1.7	1.7
Number of months pregnant at							
time of first ANC visit	<b>7</b> 0.0	<b>70.</b> 4	<b>77</b> 0	4.5.0	40.5	<b>~ ~ ~</b>	<b>50.0</b>
No antenatal care	58.9	50.4	57.9	45.3	48.7	52.9	60.9
<4	8.5	10.2	8.9	11.7	13.5	10.6	8.9
4-5 6-7	14.3 12.4	18.4 15.9	19.0 8.8	22.8 16.8	22.2 13.0	19.8 12.3	14.8 10.2
8+	5.4	5.1	5.2	3.5	2.6	4.2	5.2
Don't know/missing	0.5	0.0	0.2	0.0	0.0	0.2	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median months pregnant							
at first visit (for those with ANC)	5.8	5.6	5.5	5.6	5.2	5.5	5.6
Number of women	198	77	458	237	352	1,322	408





Use of antenatal care is positively associated with income (Figure 7.2). Among women having a live birth in the year preceding the 2001 Survey, women in higher asset quintiles were more likely to use antenatal care than women in lower asset quintiles. In RSDP areas, 70.5 percent of women in the highest asset quintile sought antenatal care but only 34.6 percent of women in the lowest asset quintile did. The difference in non-RSDP areas was larger; 65.8 percent of women in the highest asset quintile sought antenatal care but only 20.7 percent of women in the lowest asset quintile did.

Figure 7.2 Percentage of Women with Birth in Year Preceding Survey Using ANC by Asset Quintile, RSDP and non-RSDP areas



Tables 7.1B presents information on the source of antenatal care for women with births in the 12 months months preceding the survey. The main providers of antenatal care services in RSDP areas were RSDP satellite clinics (47.8 percent) and RSDP static clinics (10.7 percent). The public sector provided 23.5 percent of antenatal care, about half of which was provided by Thana Health Complexes (10.6 percent). In contrast, the public sector was the predominant provider of antenatal care in non-RSDP areas, providing 53.7 percent of antenatal care, principally through Family Welfare Centres (22.0 percent) and the Thana Health Complexes (12.7 percent).

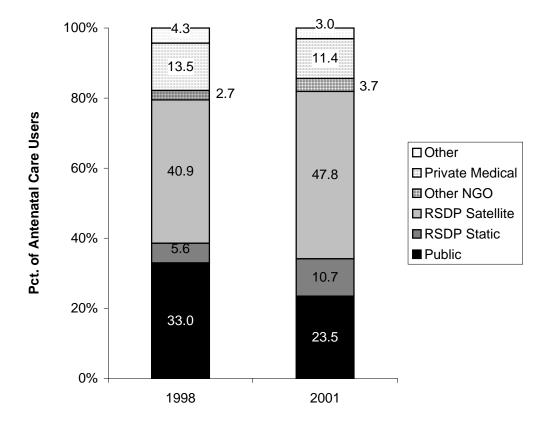
Since 1998, RSDP providers have supplied an increasing share of antenatal care visits, expanding coverage rather than substituting for existing providers (Figure 7.3). RSDP clinics provided antenatal care to 46.5 percent of antenatal care users with births in the year preceding the survey in 1998, but increased to 58.5 percent of antenatal care users in the 12 months preceding the survey in 2001. The share for the public sector fell from 33.0 to 23.5 percent.

Table 7.1B Source of Antenatal Care

Percentage of women with <u>a live birth in the year preceding the survey</u> by whether they had at least one antenatal care (ANC) visit during the last pregnancy by source of care, RSDP and non-RSDP area

	Chittagong	Khulna/Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
Percentage received ANC	39.8	49.0	42.1	54.9	50.9	46.8	39.4
Women with a birth in last year							
preceding the survey	198	77	458	237	352	1,322	408
Place of ANC checkup HOME							
Medical person at home	3.0	3.9	3.9	1.7	0.6	2.4	4.5
Non-medical person at home PUBLIC SECTOR	1.5	0.0	0.0	0.0	0.0	0.2	0.8
Hospital/medical college	5.9	2.5	2.2	6.7	3.6	4.1	5.6
Family Welfare Centre	9.6	10.0	1.2	6.4	0.6	3.7	22.0
Thana Health Complex	16.2	14.8	11.2	11.9	5.6	10.6	12.7
MCWC	1.4	5.0	2.9	1.7	1.2	2.1	2.4
Rural dispensary/Community clinic	0.0	1.2	0.0	1.5	0.0	0.4	1.4
Satellite clinic/ EPI outreach site	3.0	1.2	2.3	0.0	4.3	2.4	9.6
FWA	0.0	0.0	0.0	0.0	0.6	0.2	0.0
RSDP NGO							
Static clinic	5.0	9.7	17.7	8.1	7.6	10.7	9.3
Satellite clinic	33.6	37.5	40.9	52.2	60.3	47.8	3.9
OTHER NGO							
Hospital	0.0	0.0	0.6	2.5	1.3	1.1	7.7
Clinic	0.0	1.2	2.4	0.8	0.6	1.2	3.7
Satellite clinic	2.2	2.4	2.6	0.0	0.6	1.4	0.0
Fieldworker	0.0	0.0	0.0	0.0	0.0	0.0	0.5
PRIVATE MEDICAL SECTOR							
Private clinic/doctor	15.1	9.4	11.6	5.5	9.9	10.1	10.7
Traditional doctor	0.0	0.0	0.6	0.8	1.3	0.7	2.3
Pharmacy	1.5	1.2	0.0	0.0	1.3	0.6	1.4
OTHER	1.5	0.0	0.0	0.0	0.6	0.4	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	80	38	193	130	181	622	159

Figure 7.3 Sources of Antenatal Care in RSDP Areas for births in 12 months preceding the survey, 1998 and 2001



While overall use of antenatal care may be lower in lower asset quintiles, use of RSDP sources is in fact higher among women in lower asset quintiles than among women in higher asset quintiles (Table 7.2). About 63 percent of women in the lowest asset quintile who had a live birth in the year preceding the survey used RSDP satellite clinics for antenatal care. This compares with only 20.2 percent of women in the highest asset quintile. Overall, 75 percent of women in the lowest asset quintile used RSDP sources as compared with only 29.5 percent of women in the highest asset quintile.

Table 7.2 Source of Antenatal Care by Asset Quintile

Pct distribution of sources of antenatal care for women having a live birth in the year

preceding the survey by asset quintile, RSDP areas

Source Source	Lowest	2	3	4	Highest	Total
At Home					8	
Medical Person at Home	1.9	1.2	3.7	0.4	4.8	2.4
Non-Medical Person at Home	0.0	0.0	1.0	0.0	0.0	0.2
Government						
Hospital	1.9	1.1	4.6	5.0	7.7	4.1
Family Welfare Center	1.2	6.0	4.1	2.6	4.3	3.7
Thana Health Center	5.4	8.8	12.2	9.3	16.8	10.6
MCWC	4.2	2.4	0.0	3.4	0.4	2.1
Rural Dispensary	1.7	0.0	0.0	0.4	0.0	0.4
Satellite Clinic	2.9	3.3	2.3	1.7	1.8	2.4
FWA	0.0	0.0	0.9	0.0	0.0	0.2
RSDP						
Static Clinic	11.7	11.8	12.8	7.7	9.3	10.7
Satellite Clinic	63.3	58.3	50.3	47.4	20.2	47.8
NGO						
Hospital	0.0	0.0	0.9	2.6	1.8	1.1
NGO Clinic	0.0	0.0	0.0	4.4	1.2	1.2
Satellite Clinic	0.0	1.2	2.5	0.8	2.5	1.4
Private Medical						
Private Clinic	1.8	5.1	3.7	12.1	28.3	10.1
Traditional Doctor	0.9	0.8	0.0	0.9	0.9	0.7
Pharmacy	2.0	0.0	0.0	1.3	0.0	0.6
Other	1.0	0.0	1.0	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

#### 7.2 Iron Supplementation

Many mothers in Bangladesh suffer during pregnancy from anemia and iron deficiency complications. Respondents were asked whether they had taken any iron tablet/syrup during their most recent pregnancy in the last five years preceding the survey. Table 7.3 gives the percent distribution of women who had a live birth in the 12 months preceding the survey by intake of iron supplements (tablets/syrup) during pregnancy for the most recent birth, according to selected background characteristics. In RSDP areas, 41.3 percent of women received iron supplements during their most recent pregnancy. That percentage was slightly higher in non-RSDP areas where 42.5 percent of women received iron supplements during their most recent pregnancy. Among project areas, iron intake was highest in Sylhet division (48.4 percent) and lowest in Dhaka division (34.4 percent).

It is evident that iron supplementation during pregnancy is directly related with education, i.e. those who attained higher educational levels are likely to receive more iron supplement.

Table 7.3 Iron Supplementation (last one year)

Percent distribution of women who had a live birth in the last one year preceding the survey by intake of iron supplements during pregnancy for the most recent birth, according to background characteristics, RSDP and non-RSDP areas.

	Took Iron Tablet/Syrup During Pregnancy								
Background characteristic	Yes	No	Don't Know/ Missing	Total	Number				
Age at birth 10-14 15-19 20-34 35-49	47.0	53.0	0.0	100.0	42				
	43.0	57.0	0.0	100.0	381				
	41.8	58.2	0.0	100.0	799				
	28.8	69.9	1.2	100.0	100				
Birth order 1 2-3 4-5 6+	51.7	48.3	0.0	100.0	345				
	42.8	57.2	0.0	100.0	531				
	33.7	66.3	0.0	100.0	280				
	27.8	71.4	0.7	100.0	166				
Division Chittagong Khulna/Barisal Dhaka	44.2	55.2	0.6	100.0	198				
	38.9	61.1	0.0	100.0	77				
	34.4	65.6	0.0	100.0	458				
Rajshahi	42.5	57.5	0.0	100.0	237				
Sylhet	48.4	51.6	0.0	100.0	352				
Education No education Primary Secondary Higher Secondary University/College	30.3	69.7	0.0	100.0	723				
	48.1	51.5	0.4	100.0	324				
	60.3	39.7	0.0	100.0	249				
	78.2	21.8	0.0	100.0	19				
	84.8	15.2	0.0	100.0	7				
Total RSDP Area	41.3	58.6	0.1	100.0	1,322				
Non-RSDP Area	42.5	57.5	0.0	100.0	408				

#### 7.3. Tetanus Toxoid (TT) Vaccination

Tetanus Toxoid (TT) injections are given during pregnancy to prevent tetanus among newborns. To avoid this fatal disease, pregnant women should receive two doses of TT injection during pregnancy. However, if a woman is vaccinated in a prior pregnancy, she may only require one booster dose during a subsequent pregnancy. Five doses are considered to provide lifetime protection. Women who had a live birth in the five years preceding the survey were asked whether they had received TT injection during pregnancy for the most recent birth. Table 7.4A gives the percent distribution of women by number of tetanus toxoid injections received during pregnancy for the most recent birth if the birth occurred in the three years preceding the survey by selected background characteristics.

The survey found that 80 percent of women of RSDP areas received at least one dose of tetanus toxoid during their most recent births, with 24 percent receiving one dose and 56 percent receiving more than one dose. From the 1998 RSDP baseline survey to the 2001 Survey, tetanus toxoid vaccination rate increased by 5.3 percentage points in RSDP project areas, from 74.7 percent in 1998 to 80.0 percent in 2001 RSDP evaluation survey.

Tetanus toxoid vaccination coverage (at least one dose of TT vaccine) was higher in Rajshahi (83.9 percent) and Chittagong (80.3 percent) divisions than Sylhet (76.2 percent), Khulna/Barisal (79.1 percent), and Dhaka (81.0 percent) divisions. Tetanus toxoid coverage increased with the age of mother and decreased with birth order.

Table 7.4A also shows that receiving two or more doses of TT injections was inversely related to age i.e. women of higher age were less likely to receive two or more doses of TT vaccination during their most recent pregnancy. Among women age 10 to 14 years, 74.3 percent received two or more doses of TT vaccines as compared with only 41.3 percent of age 35-49 years. Again, this is likely due to a higher number of previous TT vaccinations in earlier pregnancies for women in older age groups.

Tetanus toxoid coverage was inversely correlated with birth order. About 92 percent of those who were pregnant for the first time received at least one dose of TT vaccine against 82.4 percent who were pregnant for the second or third time.

Education had a positive effect on tetanus toxoid coverage. Slightly over a quarter of women (26.9 percent) having no education did not receive any TT vaccine in their last pregnancy, while all the university/college educated women received at least one dose of TT in their most recent pregnancy.

The respondents were asked if they are aware of the required number of tetanus doses for lifetime protection. Only 17.2 percent of women of RSDP project areas and 21.8 percent of women of non-RSDP areas could correctly report the recommended number of tetanus toxoid doses. Not surprisingly, higher proportions of educated women were aware of the recommended doses, i.e. 32.1 percent of those having university/college education against only 19.5 percent with primary level education having correct knowledge.

Table 7.4B presents information about the source of the most recent TT vaccine received by women with a live birth in the one year preceding the survey. In RSDP areas, the most important source of TT vaccine was the RSDP satellite clinic (42.3 percent) followed by the government satellite clinic (19.7 percent) and the Thana Health Complex (13.5 percent). RSDP satellite clinics were the most important provider of TT vaccines in all divisions. In non-RSDP areas the main providers were the government satellite clinics (43.1 percent) and the Family Health Complexes (18.5 percent).

Table 7.4A Tetanus Toxoid Injections (last one year)

Percent distribution of women who had a live birth <u>in the last one year</u> preceding the survey by number of tetanus toxoid injections received during pregnancy for the most recent birth, according to background characteristics, RSDP and non-RSDP areas.

		Number of Tetanus Toxoid Injections								
Background characteristic	None	One injection	Two or more injections	Don't know/ Missing	Total	Know recommended # of TT	Number			
Age at birth										
10-14	13.4	12.3	74.3	0.0	100.0	8.4	42			
15-19	14.1	15.0	70.9	0.0	100.0	17.8	381			
20-34	21.4	28.8	49.8	0.0	100.0	17.6	799			
35-49	33.8	24.9	41.3	0.0	100.0	15.3	100			
Birth order										
1	8.1	10.7	81.2	0.0	100.0	20.8	345			
2-3	17.5	27.4	55.0	0.0	100.0	16.6	531			
4-5	29.5	32.9	37.6	0.0	100.0	16.6	280			
6+	36.2	26.0	37.8	0.0	100.0	12.2	166			
Division										
Chittagong	19.7	20.7	59.6	0.0	100.0	17.0	198			
Khulna/Barisal	20.9	23.4	55.7	0.0	100.0	25.9	77			
Dhaka	19.0	23.5	57.5	0.0	100.0	18.7	458			
Rajshahi	16.1	23.8	60.1	0.0	100.0	20.5	237			
Sylhet	23.8	26.9	49.3	0.0	100.0	11.0	352			
Education										
No education	26.9	25.1	48.0	0.0	100.0	11.9	723			
Primary	14.7	26.9	58.3	0.0	100.0	19.5	324			
Secondary	8.4	17.2	74.3	0.0	100.0	27.0	249			
Higher Secondary	2.5	20.4	77.1	0.0	100.0	41.8	19			
University/College	0.0	31.9	68.1	0.0	100.0	32.1	7			
Total RSDP	20.0	24.0	56.0	0.0	100.0	17.2	1,322			
Non-RSDP	19.2	28.1	52.6	0.0	100.0	21.8	408			

Table 7.4B Source of Tetanus Toxoid Injection (last one year)

Percent distribution of women with a live birth in the last one year preceding the survey who received a TT injection by source of most recent TT injection , RSDP and non-RSDP areas

Source of most recent TT injection		Khulna/					
	Chittagong	Barisal	Dhaka	Rajshahi	Sylhet	RSDP Total	Non-RSDP
HOME							
Medical person at home	2.6	0.7	5.7	3.3	0.8	3.2	1.3
Non-medical person at home	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUBLIC SECTOR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hospital/medical college	1.9	0.7	1.5	2.2	1.2	1.5	1.5
Family Welfare Centre	3.7	2.4	3.8	4.3	4.9	4.1	18.5
Thana Health Ccomplex	17.2	16.7	14.4	10.0	12.1	13.5	10.5
MCWC	0.2	0.8	0.0	2.7	0.0	0.7	0.0
Rural dispensary/Community							
clinic	0.0	2.3	0.9	0.6	0.8	0.7	1.8
Satellite clinic/ EPI outreach site	26.9	24.6	18.1	15.0	20.0	19.7	43.1
FWA	1.5	0.8	1.7	2.3	0.8	1.5	7.7
Health assistant	1.5	0.0	2.9	5.6	0.8	2.5	2.4
NIPHP NGO							
Static clinic	1.3	4.4	10.9	7.6	5.9	7.2	4.5
Satellite clinic	37.6	44.1	36.7	45.4	50.2	42.3	1.6
OTHER NGO							
Hospital	0.0	0.0	0.3	0.6	0.0	0.2	2.5
Clinic	0.0	0.0	0.9	0.0	0.4	0.4	0.6
Satellite clinic	0.0	0.8	0.3	0.0	0.4	0.3	0.0
PRIVATE MEDICAL SECTOR							
Private clinic/doctor	2.0	1.5	0.9	0.6	0.4	1.0	2.0
Traditional doctor	2.8	1.5		0.6	0.4	1.0	2.8
Pharmacy	2.2	0.0	0.0	0.0	0.0	0.3	0.5 0.7
OTHER	0.0	0.0	0.9	0.0	1.2	0.6	
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	159	61	371	199	268	1,059	329

# 7.4. Knowledge of Pregnancy Complications and Care

A woman may suffer from a number of complications during pregnancy, delivery or postpartum. Respondents were asked if they were aware of those complications which are life threatening. Table 7.5A and Figure 7.4 give the distribution of women who knew the complications threatening the life of a mother during pregnancy, delivery or postpartum, by division and RSDP and non-RSDP areas.

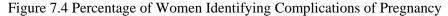
Just over half of women in RSDP project areas were aware of tetanus as an important complication of pregnancy. Knowledge of other complications, however, was low - obstructed labor (37.0 percent), retained placenta (35.6 percent), baby's hand or feet come/bad baby position (28.0 percent), convulsions/eclampsia (27.9 percent), excessive vaginal bleeding (16.0 percent), prolonged labor (13.9 percent) and edema/pre-eclampsia (7.8 percent). The above complications were identified as the most life threatening complications of the women in all divisions. The ranking of complications was similar in non-RSDP areas. Still, a substantial number of women were not aware of such complications: 9.4 percent of the women of RSDP areas and 8.6 percent of the women in non-RSDP areas did not report having knowledge of complications during pregnancy, delivery and postpartum. The percentage of women having no knowledge of such complications was higher in Chittagong (15.6 percent) and Sylhet (11.7 percent) divisions compared to other divisions.

Table 7.5A Knowledge of Complications for Pregnancy

Percent distribution of women who know the complications threatening the life of a mother during pregnancy, delivery, or post delivery, by division and RSDP/non-RSDP area.

Problems Associated with Pregnancy	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non RSDP
Severe Headache/Blurry Vision/	5.2	9.6	6.5	5.9	15.7	8.2	8.6
High-Blood Pressure Headache							
Edema/Pre-Eclampsia	5.7	8.2	6.6	11.1	7.4	7.8	7.1
Convulsion/Eclampsia	15.2	29.9	27.8	28.0	36.5	27.9	27.2
Excessive Vaginal Bleeding	14.4	23.7	18.4	18.0	7.8	16.0	19.1
Foul-Smelling Discharge with High Fever	1.0	1.9	0.5	0.5	0.2	0.6	0.7
Jaundice	4.9	2.2	3.0	3.9	1.6	3.1	3.7
Tetanus	48.9	55.9	60.8	62.0	35.9	54.1	57.2
Baby's Hand or Feet Come/ Bad Baby	37.9	29.7	24.2	25.2	30.3	28.0	30.3
Position							
Prolonged Labor	15.4	12.6	12.7	15.5	13.9	13.9	16.0
Obstructed Labor	35.7	33.8	37.8	36.4	38.4	37.0	37.8
Retained Placenta	23.5	48.3	33.5	50.4	26.0	35.6	36.0
Torn Uterus	5.0	4.3	4.7	4.4	2.1	4.1	3.6
Other	0.5	1.6	1.0	1.0	0.7	0.9	0.9
Don't know	15.6	5.2	7.8	7.6	11.7	9.4	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	1,361	713	3,413	2,227	1,911	9,625	3,122

Women who knew the complications of pregnancy, delivery or postpartum were asked what one should do if such complications arise. The responses are analyzed by selected background characteristics and given in Table 7.5B. Almost all of the responding women were aware of the need for seeking medical care in such situations irrespective of their age, birth order, education, and place of residence.



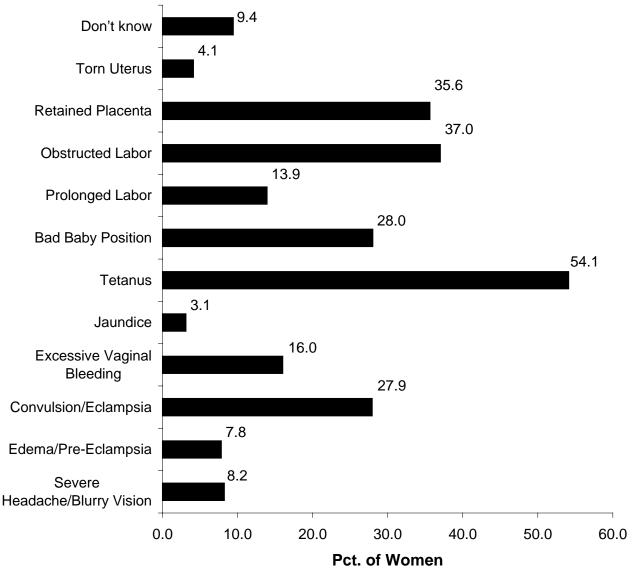


Table 7.5B Response to complications of pregnancy

Percentage of women who will seek care for complications of pregnancy through following mediums, for women who could identify complications of pregnancy, by background characteristics, RSDP/non-RSDP areas

Background		Consult				
characteristic	Seek Medical Care	Relatives/Friends	Pray to God	Do Nothing	Don't Know/ Missing	Number of Women
Age at birth						
10-14	99.4	2.1	0.7	0.0	0.0	194
15-19	99.2	1.7	1.0	0.1	0.2	2,287
20-34	99.1	1.3	0.8	0.1	0.3	5,477
35-49	98.8	0.9	1.2	0.3	0.2	760
Birth order						
1	99.4	1.5	0.6	0.0	0.2	2,315
2-3	99.1	1.5	1.1	0.1	0.2	3,336
4-5	98.8	1.4	0.6	0.1	0.3	1,863
6+	98.7	1.0	1.2	0.3	0.3	1,205
Division						
Chittagong	99.0	1.0	0.7	0.0	0.2	1,150
Khulna/Barisal	98.2	1.0	3.6	0.2	0.8	676
Dhaka	99.0	1.1	0.3	0.1	0.3	3,147
Rajshahi	99.5	1.9	1.1	0.0	0.2	2,059
Sylhet	99.1	1.7	0.7	0.2	0.1	1,688
Education						
No education	98.7	1.3	1.0	0.1	0.3	5,255
Primary	99.7	1.5	0.9	0.0	0.2	2,011
Secondary	99.8	1.7	0.4	0.0	0.1	1,333
Higher Secondary	100.0	1.1	0.0	0.0	0.0	97
University/College	100.0	0.0	0.0	0.0	0.0	54
Total RSDP Area	99.1	1.4	0.9	0.1	0.3	8,719
Non-RSDP Area	99.4	1.4	1.1	0.1	0.2	2,855

Table 7.5C shows that Thana health complexes (71.3 percent), hospital/medical college (67.0 percent), family welfare center (20.4 percent), private clinic/doctor (10.2 percent), RSDP static clinic (6.2 percent) were the major known sources of medical services in RSDP areas.

Table 7.5C Knowledge of Potential source of medical services for complications of pregnancy

Percentage of women identifying specific sources of medical services for complications of pregnancy, by division and RSDP/non-RSDP area

Source of Care	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non- RSDP
Home	7.3	7.8	5.5	7.6	3.6	6.0	5.9
Medical Person at home	6.6	7.5	5.1	7.1	3.1	5.6	5.6
Non-medical person at home	1.1	0.7	0.5	0.5	0.5	0.6	0.4
Public Sector	95.7	96.6	97.2	98.5	95.9	97.0	98.0
Hospital/Medical College	67.4	67.8	61.6	73.8	68.3	67.0	64.3
Family Welfare Center	17.3	24.5	21.2	21.0	18.8	20.4	24.9
Thana Health Complex	67.7	81.5	77.3	70.1	59.9	71.3	79.4
MCWC	4.5	3.7	1.6	3.5	2.8	2.9	3.1
Rural Dispensary/Comm. Clinic	0.5	1.4	1.1	1.3	0.6	1.0	1.4
Satellite Clinic/EPI Outreach Site	0.1	0.0	0.1	0.2	0.1	0.1	0.2
FWA	0.3	0.4	0.4	0.4	0.4	0.4	0.7
RSDP NGO	2.1	14.1	7.3	7.4	8.6	7.4	2.9
Static Clinic	1.4	12.1	5.8	6.1	7.8	6.2	2.9
Satellite Clinic	0.6	3.2	1.7	1.6	0.9	1.5	0.0
Other NGO	0.9	1.3	1.3	2.2	6.0	2.3	3.8
Hospital	0.0	0.1	0.8	1.4	5.3	1.6	3.0
Clinic	0.7	0.9	0.4	0.7	0.5	0.6	0.9
Satellite Clinic	0.1	0.2	0.1	0.1	0.2	0.1	0.0
Fieldworker	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Private Medical Sector	15.9	11.6	15.8	8.0	12.8	13.1	19.0
Private clinic/Doctor	12.3	8.8	12.9	5.7	9.8	10.2	16.5
Traditional Doctor	4.2	2.9	2.9	2.5	2.3	2.8	3.3
Pharmacy	1.6	0.6	0.8	0.2	1.3	0.8	0.6
Other	0.4	0.3	0.1	0.1	0.2	0.2	0.3
Don't Know	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,138.0	664.0	3,115.0	2,049.0	1,672.0	8,638.0	2,838.0

# 7.5 Delivery Care

Proper medical attention and hygienic conditions during delivery are the preconditions for reducing the risks of complications and infections that can cause death or serious illness for either the mother or the newborn. It is therefore desirable to have deliveries in health facilities under medical supervision. Background characteristics and opportunities play important roles in deciding where to deliver a child.

#### Place of Delivery

Table 7.6 gives the percent distribution of live births in the five years preceding the survey by place of delivery, according to selected background characteristics. Ninety-six percent of mothers in RSDP areas and 94.6 of mothers in non-RSDP areas delivered at home. Only 4 percent of deliveries in RSDP areas and 5.4 percent of deliveries in non-RSDP areas occurred at health facilities. Public sector facilities such as clinics, government hospitals, Thana health complex, MCWC, as well as private hospital clinics were the facilities where mothers preferred to go, if at all, for institutional delivery.

Mother's education, birth order, and the number of antenatal care visits were associated with the place of delivery. The proportion of deliveries in a health facility was higher among the mothers in RSDP project areas who gave birth for the first time (9.1 percent); had attained secondary (9.2 percent), higher secondary (28.8 percent) or university/college (29.1 percent) education and who had made at least four antenatal visits (19.3 percent) during the most recent birth.

#### **Assistance During Delivery**

Table 7.7 gives the percentage distribution of live births in the five years preceding the survey by the person providing assistance during delivery according to selected background characteristics. As with antenatal care, the interviewer was instructed to record all responses if more than one person assisted during delivery. However, for the purposes of this tabulation, if more than one person was mentioned, only the most highly qualified person was considered. The data show that in RSDP areas untrained traditional birth attendants (TBA) assisted in over two-thirds (72.1 percent) of the total deliveries, followed by TTBAs (11.3 percent), relatives (8.8 percent), qualified doctors (2.8 percent), nurses/midwives (2.4 percent), and unqualified doctors (1 percent). The person providing assistance during delivery did not depend on the age of the mother at birth, but was associated with birth order. A higher proportion of qualified doctors (5.9 percent) and nurses/midwives (5.5 percent) provided assistance during delivery for those who were mothers for the first time. The corresponding proportions were lower for higher order births.

Qualified doctors assisted in higher proportions of births in Sylhet and Rajshahi divisions, as compared to other divisions. Seeking assistance of competent persons during delivery (qualified doctors or nurses/midwives) depended on the education level of mothers. Higher proportion of mothers with higher secondary (21.7 percent) or university/college (29.7 percent) education chose qualified doctors for assisting in the delivery. Those who had more frequent antenatal care visits were more likely to seek assistance of doctors and nurses for delivery.

The situation was more or less identical in non-RSDP areas. Qualified doctors (3.6 percent) and a nurse/midwife (3.3 percent) assisted in only a small proportion of births in non-RSDP areas, as compared with RSDP areas.

Table 7.6 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, RSDP and non-RSDP areas

NGOs

Other NGO Static

Clinic

Private

Hospital/ Clinic

Home

Other

Total

Number

Tereont distribution of five		irve years preced	ing the survey	place of defive
		Public Sector		NG
	Gov't Hospital	Thana Health Complex	MCWC	RSDP Static Clinic
Age at birth 10-14 15-19 20-34 35-49	1.0 2.9 1.0 2.0	3.9 1.1 0.6 1.4	0.9 0.2 0.2 0.2	
Birth order 1 2-3 4-5 6+	4.1 1.1 0.7 0.5	2.1 0.4 0.6 0.6	0.5 0.1 0.2 0.0	
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	0.8 1.8 1.1 2.8 1.9	0.6 1.5 0.9 1.2 0.5	0.2 0. 0. 0.3 0.2	
Education No education Primary Secondary Higher Secondary University/College	0.6 2.1 3.6 13.4 6.3	0.6 0.9 1.5 1.7 3.8	0.1 0. 0.3 1.9	
Antenatal care visits <sup>1</sup> None 1-3 4+ Don't know/missing	0.6 1.6 9.1 12.8	0.6 1.2 1.8 0.0	0. 0.2 1.7 0.0	
Total RSDP Area	1.6	0.9	0.	
Non-RSDP Area	2.0	0.8	0.	

Table 7.7 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics, RSDP and non-RSDP areas

	Hea	lth Profession	al	(	Other Person						
Background characteristic	Qualified Doctor	Nurse/ Mid-wife	Family Welfare Visitor	Trained traditional birth attendant	Untrained TBA	Unqualified Doctor	Relatives	Other	No One	Total	Number
Age at birth 10-14 15-19 20-34 35-49	2.7	6.1	0.0	10.1	69.8	0.8	10.5	0.0	0.0	100.0	117
	3.2	3.6	0.5	11.9	70.3	1.1	8.9	0.1	0.4	100.0	1,326
	2.6	1.8	0.2	11.4	72.3	1.1	9.0	0.1	1.6	100.0	3,200
	2.7	2.6	0.0	8.6	76.6	0.2	6.6	0.1	2.6	100.0	473
Birth order 1 2-3 4-5 6+	5.9 2.1 1.6 1.4	5.5 1.9 1.3 0.7	0.4 0.3 0.0 0.0	12.0 11.1 11.6 10.0	68.0 71.8 74.1 76.2	1.2 1.2 0.7 0.5	6.6 10.2 9.2 7.9	0.1 0.1 0.2 0.0	0.3 1.2 1.2 3.3	100.0 100.0 100.0 100.0	1,161 2,023 1,124 808
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	2.4	2.1	0.3	13.4	73.7	1.2	6.5	0.0	0.4	100.0	785
	2.9	3.9	0.3	8.7	67.6	4.3	11.5	0.3	0.6	100.0	335
	1.9	1.7	0.2	9.3	75.9	0.5	7.9	0.2	2.5	100.0	1,811
	3.4	3.3	0.1	10.5	66.6	0.7	14.6	0.0	0.8	100.0	1,023
	3.6	2.6	0.4	14.3	71.5	0.9	5.9	0.1	0.8	100.0	1,161
Education No education Primary Secondary Higher Secondary University/College	1.2	1.0	0.1	9.7	76.1	0.9	9.1	0.1	1.9	100.0	3,006
	2.1	2.5	0.2	12.4	71.5	1.1	9.4	0.2	0.6	100.0	1,203
	7.2	6.8	0.7	15.5	60.3	1.3	7.7	0.1	0.4	100.0	1,203
	21.7	7.6	2.1	10.2	55.9	0.1	0.0	0.0	0.0	100.0	58
	29.7	14.0	0.0	6.2	50.0	2.6	0.0	0.0	0.0	100.0	31
Antenatal care visits <sup>1</sup> None 1-3 4+ Don't know/missing	0.6	1.3	0.1	8.8	76.8	0.9	9.8	0.1	1.7	100.0	3,151
	3.8	3.1	0.5	14.6	68.1	1.2	7.6	0.2	0.9	100.0	1,559
	15.6	8.6	0.6	17.8	50.5	0.9	5.8	0.0	0.3	100.0	397
	12.8	12.8	0.0	0.0	74.5	0.0	0.0	0.0	0.0	100.0	9
Total RSDP Area Non-RSDP Area	2.8 3.6	2.4	0.2	11.3 14.3	72.1 68.7	1.0 0.3	8.8 8.3	0.1 0.1	1.3 0.6	100.0	5,116 1,546

#### 7.6 Childhood Vaccination

Child health is one of the most important components of Essential Service Package (ESP) under NIPHP. Child health care services include immunization for childhood diseases, prevention/control of acute respiratory infection (ARI), prevention/control of diarrheal diseases (CDD), and prevention/control of measles, vitamin A supplementation and integrated management of childhood illnesses.

## **Vaccination Coverage**

In the 2001 RSDP evaluation survey, data on childhood immunizations were collected for all surviving children born during the five-year period before the survey. In Bangladesh, immunization records are routinely recorded on a child health card. However, retention rate of cards is far below the expected level. For each child, mothers were asked whether they had the health card for the child, and, if so, to show the card to the interviewer. When the card was available, the date of vaccinations was transferred from the card to the questionnaire. In case of non-availability of cards, immunization data were collected from mothers by asking questions.

The Expanded Program on Immunization (EPI) of the government of Bangladesh and the vaccination program in ESP under NIPHP/RSDP follow the same procedure of international guidelines recommended by the World Health Organization (WHO). According to the guidelines, all children receive a BCG vaccine against tuberculosis; three doses of DPT vaccine for the prevention of diphtheria, pertussis (whooping cough), and tetanus; three doses of Polio vaccine; and a vaccination against measles. Children should receive all of these vaccines before their first birthday, and all vaccinations should be recorded on a health card, which is given to the parents.

Table 7.8 gives the percentage of children age 12 to 23 months who received specific vaccines at any time before the survey and the percentage vaccinated by 12 months of age tabulated by the source of information. Vaccination coverage by administrative division for the RSDP and the comparison areas are also given in Table 7.8. The data show that 45.8 percent of RSDP area children of age 12-23 months were fully immunized. A significant proportion – 9.2 percent of children 12 to 23 months - received no vaccinations, and 10.7 percent failed to receive any vaccinations by 12 months of age. Although the level of coverage for BCG (89 percent), first dose of DPT (85.8 percent) and the first two doses of polio (90.1 and 85.4 percent) reached over 80 percent, the proportion of recipients of the second and third dose of DPT and third dose of polio declined substantially (to 75.2 percent for the second dose and 55.2 percent for the third dose of DPT vaccine and to 78.6 percent for the third dose of the polio vaccines.) The dropout rate from the first to the third dose of DPT and polio vaccines in 2001 RSDP evaluation survey and those in 1998 RSDP baseline survey are comparable, but the dropout rates were higher in 2001 survey, more significantly in the case of DPT vaccine. About 63 percent of children age 12-23 months had received the measles vaccine.

A child is supposed to complete all types of vaccinations during his or her first year of life. Table 7.8 also shows that 38.5 percent of children age 12 to 23 months at the time of interview completed their full course of vaccination before their first birthday. This coverage rate is 7.5 percentage points lower than the baseline figure.

As was observed in the 1998 RSDP baseline survey, variations in the vaccination coverage rates across the five administrative divisions were quite high. The proportion of children of age 12 to 23 months with full vaccination coverage, by division, were: 47.4 percent in Chittagong, 50.9 percent in Khulna/Barisal, 38.2 percent in Dhaka, 63.3 percent in Rajshahi, and 41.8 percent in Sylhet division. In 1998, the proportion of children who had completed the full course of vaccinations before their first birthday, by division, were 43.5

<sup>&</sup>lt;sup>5</sup> Estimated by dropout rate = (dose 1 - dose 3)\*100/dose 1.

percent in Chittagong, 47.7 percent in Khulna/Barisal, 29.2 percent in Dhaka, 55.1 percent in Rajshahi and 33.5 percent in Sylhet division.

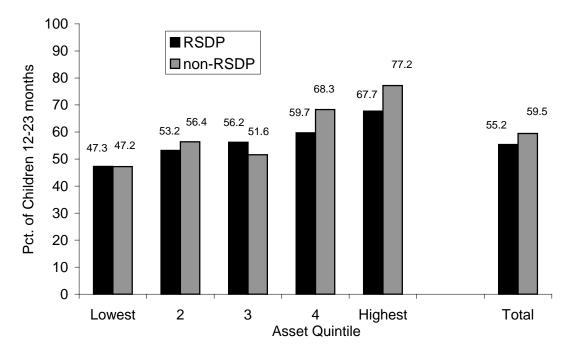
In the non-RSDP comparison areas, 51.8 percent of children of age 12 to 23 months were fully vaccinated. The coverage for BCG and measles were 90.7 and 71.7 percent, respectively. More than 90 percent of children age 12 to 23 months had received the first dose of polio, but there was a declining trend, similar to the one observed in RSDP areas, in receiving the second and third doses of DPT and polio. The dropout rates in non-RSDP areas from the first to the third dose of DPT and polio vaccines were 32.2 percent and 6.4 percent respectively.

Table 7.9A presents crude vaccination rates – rates by vaccination card or mother's report - for children age 12 to 23 months who received specific vaccines at any time before the survey cross tabulated by selected background characteristics. Table 7.9B presents the same information for children with cards only. The data show that, the overall vaccination rate in RSDP areas according to vaccination card or mother's report was 45.8 percent, while the rate was 28.6 percent with a vaccination card. The corresponding figures in non-RSDP areas were 51.8 and 34.2 percent, which were higher than the RSDP figures.

Vaccination coverage rates by sex, birth order, division of residence and mother's education are also available. Data in Table 7.9A show that the difference in the full coverage of vaccination of children of age 12 to 23 months by sex was 7.6 percentage points, 49.5 percent for males and 41.9 percent for females. Vaccination coverage was related to birth order and the education level of the mother. About 50 percent of first-born children had received the full course of vaccinations as compared with only 33 percent of sixth or higher order of births. Children having mothers with higher levels of education were more likely to be vaccinated fully. Thirty-nine percent of children with mothers having no education were vaccinated, while 49.8 percent of children with mothers having primary level education, 60.7 percent with mothers having secondary education and 56.5 percent with mothers having higher secondary level of education were fully vaccinated.

DPT3 vaccinations are positively associated with socioeconomic status (Figure 7.5). In RSDP areas, the proportion of children receiving a DPT3 vaccination in households in the highest asset quintile is 20 percentage points higher than that for children in the lowest asset quintile (67.7 percent v. 47.3 percent). This positive association is evident in non-RSDP areas as well, though the difference in vaccination rates between the wealthiest and poorest quintiles is in fact larger (77.2 percent v. 47.2 percent).

Figure 7.5 DPT3 Vaccinations for Children 12-23 Months by Asset Quintile, RSDP and non-RSDP Areas



<u>Table 7.8 Vaccinations by source of information – Vaccination card or mother's report</u>

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, RSDP areas and Non-RSDP areas.

			DPT			Polio		Measles	$All^1$	No vaccin-	Number of
Source of information	BCG	1	2	3	1	2	3			ations	Children
CHITTAGONG											
Vaccinated at any time before the											
survey											
Vaccination card	41.9	41.9	40.0	36.7	41.9	40.0	36.7	31.5	31.2	0.0	80
Mother's report	48.0	41.5	32.6	22.5	48.0	44.2	39.9	31.1	16.2	9.4	111
Either source	90.0	83.4	72.7	59.1	89.9	84.3	76.5	62.7	47.4	9.4	191
Vaccinated by 12 months of age <sup>2</sup>	88.6	82.1	71.5	58.1	88.6	82.9	75.2	57.4	43.5	10.8	191
KHULNA/BARISAL											
Vaccinated at any time before the											
survey											
Vaccination card	38.3	38.3	37.7	33.7	38.3	38.3	34.4	29.5	29.5	0.0	29
Mother's report	51.4	51.4	40.7	24.5	52.9	50.5	49.8	36.6	21.5	7.5	47
Either source	89.8	89.8	78.4	58.2	91.2	88.8	84.2	66.0	50.9	7.5	76
Vaccinated by 12 months of age <sup>2</sup>	88.3	88.3	77.1	57.1	89.8	87.3	82.6	61.9	47.7	9.0	76
DHAKA											
Vaccinated at any time before the											
survey											
Vaccination card	31.3	31.3	29.0	24.5	30.8	28.7	24.5	22.0	20.9	0.0	130
Mother's report	56.4	52.8	43.1	22.5	59.0	55.1	50.4	34.4	17.3	9.4	282
Either source	87.8	84.1	72.1	47.1	89.8	83.8	75.0	56.4	38.2	9.4	412
Vaccinated by 12 months of age <sup>2</sup>	85.5	81.9	70.7	44.8	87.5	82.1	71.3	43.5	29.2	11.7	412
RAJSHAHI Vaccinated at any time before the											
survey											
Vaccination card	49.5	49.5	47.8	46.2	49.5	47.8	46.2	41.4	41.4	0.0	99
Mother's report	46.8	42.4	37.5	25.1	46.3	44.5	42.8	36.6	21.8	3.7	101
Either source	96.3	91.9	85.3	71.2	95.8	92.3	89.0	78.0	63.3	3.7	199
Vaccinated by 12 months of age <sup>2</sup>	95.3	91.0	83.4	68.6	94.8	90.3	85.7	68.4	55.1	4.6	199
SYLHET											
Vaccinated at any time before the											
survey	40.5	40.5	20.2	24.5	40.5	27.0	24.5	20.1	20.0	0.0	400
Vaccination card	40.6	40.6	38.2	34.5	40.6	37.8	34.5	29.1	28.8	0.0	109
Mother's report	44.1	44.1	35.1 73.3	17.5	45.7	44.9	42.0	31.9	13.0	13.3	159
Either source Vaccinated by 12 months of age <sup>2</sup>	84.7 83.8	84.7 83.8	72.4	52.0 50.7	86.3 85.4	82.6	76.4	61.1 49.7	41.8	13.3	268 268
vaccinated by 12 months of age	03.0	03.0	12.4	50.7	05.4	81.7	74.5	49./	33.5	14.2	208

# <u>Table 7.8 Vaccinations by source of information – Vaccination card or mother's report</u>

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, RSDP areas and Non-RSDP areas.

			DDT			Polio		Massles	$All^1$	No	Number of
	D.C.C		DPT					Measles	All	vaccin-	~ -
Source of information	BCG	1	2	3	1	2	3			ations	Children
TOTAL RSDP											
Vaccinated at any time before the											
survey											
Vaccination card	38.9	38.9	36.8	33.2	38.7	36.7	33.3	29.1	28.6	0.0	477
Mother's report	50.1	47.0	38.4	21.9	51.4	48.7	45.3	33.8	17.2	9.2	699
Either source	89.0	85.8	75.2	55.2	90.1	85.4	78.6	62.9	45.8	9.2	1,146
Vaccinated by 12 months of age <sup>2</sup>	87.6	84.5	73.9	53.4	88.7	83.9	76.1	53.2	38.5	10.7	1,146
TOTAL NON-RSDP											
Vaccinated at any time before the											
survey											
Vaccination card	41.7	41.5	40.7	39.0	41.7	40.7	39.0	34.2	34.2	0.0	155
Mother's report	49.0	46.2	38.1	20.4	49.6	48.4	46.4	37.5	37.5	8.1	216
Either source	90.7	87.7	78.8	59.5	91.3	89.1	85.5	71.7	51.8	8.1	371
Vaccinated by 12 months of age <sup>2</sup>	89.2	86.3	76.9	57.7	89.3	86.9	82.8	62.8	-	-	371
j											

<sup>&</sup>lt;sup>1</sup>Children who are fully vaccinated, i.e., those who have received BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

<sup>&</sup>lt;sup>2</sup>For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

Table 7.9A Vaccinations by background characteristics - Crude (card or mother's report)

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, (according to vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, RSDP/ non-RSDP areas

Background characteristic	BCG	1	DPT 2	3	1	Polio 2	3	Measles	All <sup>1</sup>	No vaccin -ations	Percentage with a vaccination card	Number
Sex of Child Male Female	91.1 86.9	88.6 83.0	78.7 71.6	57.3 52.4	91.8 88.5	86.9 83.9	80.1 77.1	67.2 58.5	49.5 41.9	7.5 11.0	41.8 36.0	582 564
Birth order 1 2-3 4-5 6+	93.4 91.3 85.9 79.3	90.6 87.8 83.8 74.7	80.7 79.0 69.2 63.3	60.8 59.7 51.7 37.6	92.9 92.4 88.6 81.1	89.1 88.4 83.6 73.2	82.9 81.0 76.1 67.8	64.9 66.3 58.6 56.2	48.8 50.9 41.0 32.8	6.3 7.3 10.5 18.0	45.8 39.9 38.2 25.6	284 464 236 162
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	90.0 89.8 87.8 96.3 84.7	83.4 89.8 84.1 91.9 84.7	72.7 78.4 72.1 85.3 73.3	59.1 58.2 47.1 71.2 52.0	89.9 91.2 89.8 95.8 86.3	84.3 88.8 83.8 92.3 82.6	76.5 84.2 75.0 89.0 76.4	62.7 66.0 56.4 78.0 61.1	47.4 50.9 38.2 63.3 41.8	9.4 7.5 9.4 3.7 13.3	41.9 38.3 31.6 49.5 40.6	191 76 412 199 268
Mother's education No education Primary Secondary Higher Secondary University/College	84.2 93.3 97.7 100.0 100.0	80.0 91.9 95.8 100.0 85.9	68.2 80.2 88.9 100.0 85.9	48.5 59.5 69.1 72.3 73.3	86.1 94.2 96.8 100.0 100.0	81.1 90.3 91.4 100.0 100.0	73.9 82.4 87.4 91.5 87.5	54.8 68.1 80.8 72.3 85.9	38.9 49.8 60.7 56.5 73.3	13.5 5.0 2.1 0.0 0.0	31.6 45.1 52.4 62.1 54.6	652 270 202 14 8
Total RSDP Total non-RSDP	89.0 90.7	85.8 87.7	75.2 78.8	55.2 59.5	90.1 91.3	85.4 89.1	78.6 85.5	62.9 71.7	45.8 51.8	9.2 8.1	39.0 41.7	1,146 371

<sup>&</sup>lt;sup>1</sup>Children who are fully vaccinated, i.e., those who have received BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Table 7.9B Vaccinations by background characteristics – Card only

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, (according to vaccination card only), by background characteristics, RSDP/non-RSDP areas

	BCG		DPT			Polio		Measles	All <sup>1</sup>	No Vaccin-	Number of
Background characteristic		1	2	3	1	2	3			ations	Children
Sex of Child Male Female	41.8 35.9	41.6 36.0	39.6 33.9	35.9 30.5	41.4 35.9	39.7 33.5	36.0 30.5	33.7 24.4	32.8 24.2	0.0 0.0	243 203
Birth order 1 2-3 4-5 6+	45.8 39.8 37.8 25.6	45.8 39.8 37.8 25.6	44.1 38.3 34.2 23.5	39.5 34.6 31.1 21.5	45.4 39.8 37.4 25.6	43.9 38.3 33.7 23.5	39.7 34.6 33.1 21.5	34.3 30.6 27.0 18.8	33.7 30.4 26.1 18.1	0.0 0.0 0.0 0.0	130 185 90 42
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	41.9 38.3 31.3 49.5 40.6	41.9 38.3 31.3 49.5 40.6	40.0 37.7 29.0 47.8 38.2	36.7 33.7 24.5 46.2 34.5	41.9 38.3 30.8 49.5 40.6	40.0 38.3 28.7 47.8 37.8	36.7 34.4 24.5 46.2 34.5	31.5 29.5 22.0 41.4 29.1	31.2 29.5 20.9 41.4 28.8	0.0 0.0 0.0 0.0 0.0	80 29 130 99 109
Mother's education No education Primary Secondary Higher Secondary University/College	31.5 45.1 52.4 62.1 54.6	31.4 45.1 52.4 62.1 54.6	29.4 42.9 50.1 62.1 54.6	27.0 36.9 46.4 53.6 54.6	31.3 44.7 52.4 62.1 54.6	29.3 43.1 49.6 62.1 54.6	27.0 37.0 46.4 53.6 54.6	23.0 32.0 43.0 45.5 54.6	22.7 31.3 41.9 45.5 54.6	0.0 0.0 0.0 0.0 0.0	206 122 106 8 5
Total RSDP	38.9	38.9	36.8	33.2	38.7	36.7	33.3	29.1	28.6	0.0	447
Total non-RSDP	41.7	41.5	40.7	39.0	41.7	40.7	39.0	34.2	34.2	0.0	155

<sup>&</sup>lt;sup>1</sup>Children who are fully vaccinated, i.e., those who have received BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

## **Source of Vaccinations**

RSDP providers, particularly joint NIPHP-EPI sessions, are the most common sources of vaccination in RSDP areas for all antigens (Table 7.10A). NIPHP-EPI sessions provide approximately 45 to 49 percent of vaccinations for all antigens in RSDP areas, followed by RSDP satellite clinics (8.4 percent) and RSDP static clinics (3 to 4 percent).

The share of RSDP providers in total vaccination has increased substantially since 1998, almost entirely as a result of the joint NIPHP-Epi sessions (Figure 7.6). In 1998, for example, RSDP providers constituted approximately 35 percent of DPT3 and polio3 vaccinations. In 2001, these shares had increased to approximately 61 percent of all DPT3 and 59 percent for polio3 vaccinations.

Table 7.10A Source of vaccinations

Percent distribution of children under 12-23 months year who had received specific vaccinations by the source of the vaccination, RSDP and non-RSDP areas

	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP Total	Non- RSDP
Source of BCG vaccination							
	2.7	1.4	5.0	5.3	0.0	3.8	2.6
RSDP Static clinic		1.4	5.9		0.9		2.6
RSDP Satellite clinic	8.1	14.9	8.4	6.0	8.8	8.4	0.2
Joint NIPHP-EPI session	48.0	41.8	39.0	54.1	48.2	45.6	2.3
Government clinic	20.0	20.2	18.7	17.1	18.2	18.6	41.3
FWA	2.2	2.4	0.0	3.0	1.0	1.3	7.8
Other NGO	0.0	2.1	1.6	1.1	0.0	0.9	0.0
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	19.0	17.2	26.4	13.4	22.8	21.3	45.6
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	172	68	362	192	227	1,020	337
Source of Polio vaccination							
RSDP Static clinic	2.4	1.4	6.5	4.6	1.5	4.0	1.3
RSDP Satellite clinic	10.2	16.9	8.4	6.6	10.4	9.4	0.0
Joint NIPHP-EPI session	47.0	39.2	38.6	54.9	47.5	45.2	3.0
Government clinic	18.8	18.7	16.1	18.9	15.7	17.2	41.9
FWA	2.2	2.5	0.0	1.3	1.1	1.0	7.2
Other NGO	0.0	2.3	1.5	0.0	0.0	0.7	0.0
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	19.5	19.0	28.9	13.8	23.7	22.5	46.2
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	146	64	309	177	205	901	317

Table 7.10A Source of vaccinations

Percent distribution of children under 12-23 months year who had received specific vaccinations by the source of the vaccination, RSDP and non-RSDP areas

,	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP Total	Non- RSDP
C CDDT							
Source of DPT vaccination	2.0	1.0	7.7	2.6	1.5	2.0	2.2
RSDP Static clinic	2.0	1.0	7.7	3.6	1.5	3.9	2.2
RSDP Satellite clinic	6.3	14.0	9.4	6.7	12.2	9.2	0.0
Joint NIPHP-EPI session	48.8	45.5	42.2	58.7	47.8	48.6	2.3
Government clinic	23.3	18.0	15.1	17.1	18.5	18.0	41.9
FWA	1.6	1.1	0.0	1.6	0.0	0.7	7.1
Other NGO	0.0	2.2	1.2	0.0	0.0	0.5	0.0
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	17.9	18.3	24.3	12.2	20.0	19.1	46.0
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	113	44	194	142	139	632	221
Source of Measles							
RSDP Static clinic	3.9	0.9	4.1	4.6	0.6	3.2	1.9
RSDP Static clinic RSDP Satellite clinic	8.9	14.2	9.7	6.1	9.7	9.1	0.2
Joint NIPHP-EPI session	47.1	47.7	40.8	56.5	52.3	48.3	2.2
Government clinic	23.0	18.2	13.4	17.2	15.6	16.7	43.8
FWA	2.0	0.9	0.5	3.0	0.7	1.3	6.8
Other NGO	0.0	1.9	1.5	0.0	0.7	0.6	0.0
Private	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	15.0	16.1	29.9	12.6	21.1	20.8	44.1
Missing	0.0	0.0	0.0	0.0	0.0	0.0	1.0
wiissilig	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	120	50	233	155	163	721	266

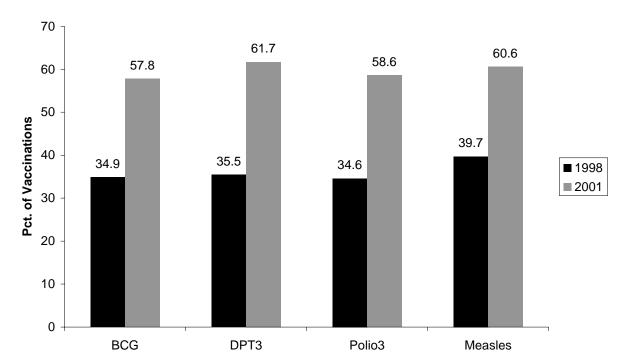


Figure 7.6 Share of RSDP in Total Vaccinations by Antigen, 1998 and 2001, RSDP Areas

#### **Trends in Childhood Vaccination**

According to Table 7.10B, immunization rates overall have been increasing over time. Table 7.10B presents vaccination rates for children of different ages at the time of the survey by whether or not they had received specific antigens by 12 months of age. For example, 79 percent of children currently 48 to 59 months of age, who therefore reached the age of 12 months at least 3 years before the survey, received a BCG vaccination, as compared with 87.6 percent of children currently 12-23 months. A nine percentage point increase was observed for DPT3 vaccinations, while polio 3 vaccinations increased by almost 21 percentage points. Measles vaccinations increased by only 2.3 percentage points.

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### Table 7.10B Vaccinations in the first year of life

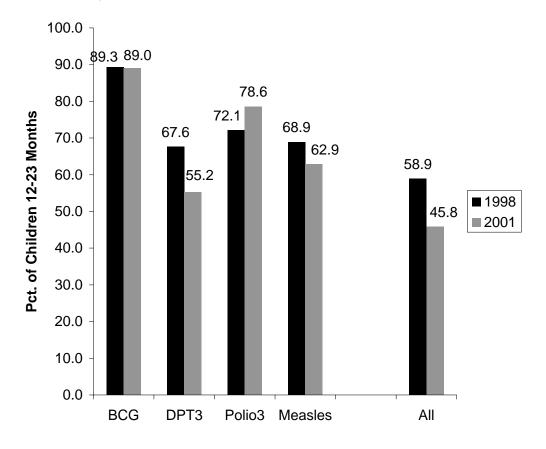
Percentage of children under five years of age at the time of the survey, who received specific vaccines by 12 months of age, and percentage with a vaccination card , by current age of child, RSDP areas

Current age			DPT			Polio				No vaccina-	Percentage with a	Number
of child in months	BCG	1	2	3	1	2	3	Measles	$All^1$	tions	vaccination card	of Children
12-23	87.6	84.5	73.9	53.4	88.7	83.9	76.1	53.2	38.5	10.7	39.0	1,146
24-35	85.6	84.1	72.6	50.6	84.7	77.8	72.9	53.2	32.8	13.0	26.4	1,302
36-47	82.6	80.5	68.3	45.9	78.3	69.4	63.4	52.8	29.4	15.9	18.8	1,348
48-59	79.0	76.0	65.0	44.7	71.2	62.8	55.6	50.9	25.6	19.2	14.6	1,100
12-59	84.2	81.8	70.4	49.1	81.2	73.8	67.7	53.2	31.9	14.2	24.6	4,896

Note: Information was obtained from the vaccination card or if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.

<sup>1</sup>Children who are fully vaccinated, i.e., those who have received BCG, measles and three each doses of DPT and polio vaccine (excluding polio vaccine given at birth).

Figure 7.7 Trends in Vaccination Coverage for Children 12 to 23 months old vaccinated at any time before the survey, RSDP Areas, 1998 and 2001



For the case of DPT3, the proportion of children receiving vaccinations from RSDP providers is roughly equal across the asset quintiles. Just under 58 percent of children in the poorest asset quintile received a vaccination from an RSDP provider as compared with 60 percent of children in the highest asset quintile (Table 7.11). There is considerable variation across the asset quintiles in the type of RSDP provider of vaccinations. Vaccinated children in the highest asset quintile are more likely to receive vaccinations from RSDP static clinics, approximately six times more likely than children in the lowest asset quintile. Children in the lowest asset quintile are 6.4 percentage points more likely to receive vaccinations from a joint RSDP/GOB EPI session.

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Table 7.11 Source of DPT3 V	accination by	Asset Quii	<u>itile</u>			
Percent distribution of source	of vaccination	by asset q	uintile for o	children und	er 12 months	of age,
RSDP areas						
Project-RSDP	Lowest	2	3	4	Highest	Total
RSDP Static Clinic	2.7	4.5	8.1	8.1	17.6	7.9
RSDP Satellite Clinic	12.8	5.4	12.3	12.1	7.0	9.8
RSDP/GOB	42.0	44.6	35.1	40.6	35.6	39.8
GOB	20.2	20.5	18.9	19.4	23.5	20.4
FWA	4.4	1.3	0.0	0.0	0.0	1.2
NGO	0.0	0.0	1.4	1.6	0.0	0.6
Private	0.0	0.0	0.0	0.0	1.7	0.3
Other	17.9	21.4	24.2	18.3	14.5	19.5
DK	0.0	2.3	0.0	0.0	0.0	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

## **Knowledge of Vaccination Schedule**

Table 7.12 examines women's knowledge of the correct schedule for DPT and polio immunizations. Specifically, it examines whether a woman with a child under age one who had not completed the sequence of DPT or polio immunizations knew when the next immunization was due. It is calculated only for children of women who had immunization cards in order to verify whether the date that the woman reported correctly followed the recommended schedule. Two sets of numbers are presented for each antigen - the percentage of women who reported any date for the next immunization and the percentage of women who reported a date that corresponded to the recommended schedule of vaccinations. DPT vaccinations are recommended at 6, 10 and 14 weeks of age. Polio vaccinations are given concurrently. A reported date was considered to follow the recommended schedule if it was 4-5 weeks from the previous vaccination.

Overall 26.9 percent of children in RSDP areas and 27.4 percent of children in non-RSDP areas who were less than one year old and had not yet completed the DPT vaccination schedule (but had at least one DPT vaccination or one polio vaccination) reported a date for when the next DPT immunization was due. Reporting of a date for the next polio vaccination was nearly identical – 26.4 percent in RSDP areas and 25.9 percent in non-RSDP areas. In RSDP areas, all of the reported DPT vaccination dates were considered to be correct, as were nearly all of the reported polio vaccination dates (98.5 percent reported the recommended interval). In non-RSDP areas, a lower percentage of women reported dates for DPT vaccination (20.2 percent<sup>6</sup>) and polio vaccinations (21.1 percent) that were considered to be correct. Overall, then 26 percent of women in RSDP areas with non-fully vaccinated children under age one reported correct dates for both the next DPT and polio immunizations. In non-RSDP areas, this figure was slightly lower – 18.5 percent.

 $<sup>^{6}</sup>$  0.274 \* 0.736 = 0.202

 $<sup>^{7}</sup>$  0.259 \* 0.815 = 0.211

Table 7.12 Knowledge of next shot by background characteristics

Percentage of mothers of children aged less than 1 year with immunization cards who report a date for the next DPT and Polio immunizations and report a date within the recommended interval for the antigen by background characteristics.

		DPT			Polio		Both	n DPT and Polio	
Background characteristics	Percentage of children with date reported for next immunization	Date recorded is within recommended interval	Number of Children	Percentage of children with date reported for next immunization	Date recorded is within recommended interval	Number of Children	Percentage of children with date reported for next immunization for both immunizations	Dates recorded are within recommended intervals for both immunizations	Number of Children
Sex of Child Male Female	31.0 23.0	100.0 100.0	141 149	30.0 23.0	97.3 100.0	139 149	30.0 23.0	97.3 100.0	139 149
Birth order 1 2-3 4-5 6+	26.3 27.7 28.7 22.4	100.0 100.0 100.0 100.0	69 123 61 37	25.1 27.1 28.7 22.4	100.0 96.6 100.0 100.0	68 122 61 37	25.1 27.1 28.7 22.4	100.0 96.6 100.0 100.0	68 122 61 37
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	34.0 33.5 24.2 24.9 26.8	100.0 100.0 100.0 100.0 100.0	42 17 103 62 65	34.0 33.5 22.6 24.9 26.8	100.0 100.0 95.1 100.0 100.0	42 17 100 62 65	34.0 33.5 22.6 24.9 26.8	100.0 100.0 95.1 100.0 100.0	42 17 100 62 65
Mother's education No education Primary Secondary Higher Secondary University/College	25.1 30.8 26.0 33.7	100.0 100.0 100.0 100.0	148 79 59 3	24.0 30.8 26.0 33.7	100.0 95.4 100.0 100.0	146 79 59 3	24.0 30.8 26.0 33.7	100.0 95.4 100.0 100.0	146 79 59 3
Total RSDP Total non-RSDP	26.9 27.4	100.0 73.6	290 101	26.4 25.9	98.5 81.5	287 99	26.4 25.9	98.5 71.5	287 99

<sup>&</sup>lt;sup>1</sup>Polio 0 is the polio vaccination given at birth. (Excluding polio vaccine given at birth).

#### 7.7 Prevalence and Treatment of Acute Respiratory Infection

Acute respiratory tract infection (ARI) is a common childhood illness and a major contributing factor to high childhood mortality in Bangladesh. ARI is an illness characterized by coughing, rapid breathing and/or fever. In the 2001 RSDP evaluation survey, prevalence of ARI symptoms has been estimated by asking mothers if their children under five years of age had a cough accompanied by short, rapid breathing and/or fever in the two weeks preceding the survey. Table 7.13A gives the percentage of children below 5 years of age with symptoms of ARI and fever and the percentage of children with symptoms of ARI with or without fever for whom treatment was sought from a health facility/provider, by selected background characteristics.

Table 7.13A shows that among the children of RSDP project areas below 5 years of age, 15.1 percent had symptoms of ARI and 37.3 percent had fever in the two weeks preceding the survey. Among the children with symptoms of ARI, treatment was sought from a health facility or provider for 23.7 percent. As compared with RSDP areas, the prevalence of ARI was lower (12.7 percent), and the proportion who sought care for ARI was slightly higher (25.3 percent) in non-RSDP areas.

As expected, the prevalence of ARI was higher among children less than one year of age. More male children (16.1 percent) than female (14.0 percent) were prone to ARI and care seeking for ARI and/or fever was much higher for male (28.6 percent) than female (18 percent) children. Birth order had a relatively small effect on prevalence and treatment for ARI and/or fever.

The prevalence of ARI with or without fever among the under five children varied by division. ARI prevalence was highest among the children of Chittagong (22.9 percent) and Khulna/Barisal (19.3 percent) divisions compared to the other divisions. Mother's education was an important factor associated with ARI infection, as well as being related to the likelihood of seeking treatment - 15.6 percent of children with mothers having no education had suffered from ARI infection as compared with only 9.9 percent of children with mothers having a university/college education. Also, children with educated mothers were more likely to seek treatment for ARI than those with no or less educated mothers. Treatment was sought for only 21.3 percent of the children with mothers having no education; while 67.4 percent of the children of mothers having university/college were taken to the facility/provider for treatment of ARI.

Table 7.13B presents the percent distribution of children under five years of age who had ARI during the two weeks previous to the survey tabulated by the source of treatment.

Table 7.13A Prevalence and treatment of symptoms of ARI or ARI plus fever

Percentage of children under five years of age who had a cough accompanied by short, rapid breathing (symptoms of ARI), and percentage of children who had fever in the two weeks preceding the survey, and percentage of children with symptoms of ARI

or ARI plus fever for whom treatment was sought from a health facility or provider, by background characteristics

of that plas level for wil	om deadlicht was	sought from a ne	arai racinty or pr	ovider, by background characteris	1100
				Among children with	
	Percentage of			symptoms of ARI or	Number of
Background	children with	Percentage of	Number of	ARI plus fever	Children with
characteristic	symptoms	children with	children	Percentage for whom	ARI or ARI
	of ARI	fever		treatment was sought from a	plus fever
				health facility or provider <sup>1</sup>	1
Age in months					
<6	18.0	33.4	464	31.1	83
6-11	21.8	46.3	783	26.1	170
12-23	17.2	44.0	1,146	21.4	197
24-35	13.9	37.8	1,302	19.7	181
36-47	12.9	33.4	1,348	20.4	173
48-59	10.9	29.7	1,100	29.7	120
10 33	10.5	27.7	1,100	25.7	120
Sex					
Male	16.1	38.3	3,092	28.6	498
Female	14.0	36.2	3,051	18.0	427
1 chiare	11.0	30.2	3,031	10.0	127
Birth Order					
1	14.7	33.7	1,955	28.5	287
2-3	14.5	38.6	3,224	22.2	468
4-5	13.6	37.8	1,685	22.3	230
6+	15.5	38.7	1,150	23.5	178
0+	15.5	36.7	1,130	23.3	176
Division					
Chittagong	22.9	43.2	992	28.0	227
Khulna/Barisal	19.3	43.7	378	20.3	73
Dhaka	12.1	34.9	2,152	20.8	260
Rajshahi	14.5	37.2	1,163	21.9	168
Sylhet	13.5	35.0	1,458	25.3	197
Symet	13.3	33.0	1,436	23.3	197
Mother's education					
No education	15.6	36.3	3,653	21.3	570
Primary	15.1	40.5	1,447	22.0	218
Secondary	13.7	36.8	938	35.3	128
	7.1	31.6	938 70	33.3 44.5	5
Higher Secondary					
University/College	9.9	26.3	34	67.4	3
Total RSDP	15.1	37.3	6 1 4 2	23.7	925
Total KSDP	15.1	37.3	6,142	23.7	923
Total non-RSDP	12.7	37.2	1,873	25.3	238
TOTAL HOH-KSDP	12./	31.2	1,0/3	۷۵.۵	238

ARI = Acute Respiratory Infection.

Note: The results in the last two columns of this were calculated for children with symptoms of ARI. Because of the questionnaire design, children with ARI and/or fever were asked about source of treatment. The table above represents children with ARI, but they may have had fever at the same time and therefore the source for treatment may actually refer to fever and not to ARI.

<sup>&</sup>lt;sup>1</sup>Excludes pharmacy, shop and traditional practitioner

Table 7.13B Source of Treatment for children with ARI

Percent distribution of children under five years old who were ill with a cough accompanied by short, rapid breathing (ARI) during the two weeks preceding the

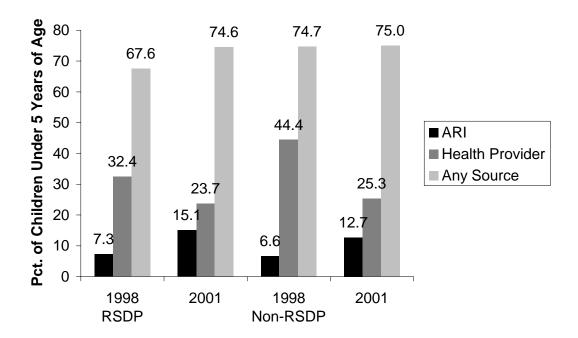
survey by source of treatment, RSDP and non-RSDP areas

		Khulna/					
	Chittagong	Barisal	Dhaka	Rajshahi	Sylhet	RSDP Total	Non-RSDP
HOME							
Medical person at home	2.6	0.0	2.1	2.7	1.7	2.1	1.7
Non-medical person at home	1.6	0.0	0.4	0.0	0.0	0.5	0.0
PUBLIC SECTOR							
Hospital/medical college	0.5	1.4	1.7	2.0	0.5	1.2	0.9
Family Welfare Centre	3.0	1.3	2.9	0.6	3.4	2.5	4.5
Thana Health Ccomplex	5.6	4.8	7.1	3.2	4.6	5.3	4.8
MCWC	0.5	0.0	0.0	0.0	0.0	0.1	0.0
Rural dispensary/Community clinic							
Satellite clinic/ EPI outreach site	0.0	0.0	0.0	0.0	0.6	0.1	0.7
FWA							
Health assistant							
NIPHP NGO							
Static clinic							
Satellite clinic	0.0	1.3	0.8	0.0	0.0	0.3	0.0
Depotholder							
OTHER NGO	0.0	0.0	0.0	0.0	0.6	0.1	0.0
Hospital							
Clinic	0.0	0.0	0.0	0.0	0.6	0.1	0.0
Satellite clinic							
PRIVATE MEDICAL SECTOR							
Private clinic/doctor	15.8	11.5	6.2	13.5	13.3	11.8	12.6
Traditional doctor	23.5	14.8	18.9	25.7	25.5	22.4	23.8
Pharmacy	19.8	19.8	29.7	19.5	24.3	23.5	18.9
OTHER	2.4	2.9	5.5	8.3	2.9	4.5	7.0
Did not seek advice/treatment	24.6	42.2	24.6	24.6	22.0	25.4	25.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Children	227	73	260	168	197	925	238

Note: The results in this table were calculated for children with symptoms of ARI. Because of the questionnaire design, children with ARI and/or fever were asked about source of treatment. The table above represents children with ARI, but they may have had fever at the same time and therefore the source for treatment may actually refer to fever and not to ARI.

Since the 1998 Baseline Survey, ARI prevalence has increased and treatment-seeking behavior from a modern health provider has declined (Figure 7.8). In 1998, the prevalence of ARI in the 2 weeks preceding the survey was 7.3 percent. In 2001, the prevalence was 15.1 percent. In non-RSDP areas, a similar doubling of the prevalence rate was observed, from 6.6 to 12.7 percent of children. Further, in 1998, just under one-third of children with ARI symptoms were taken to a modern health provider. In 2001, less than a quarter of children with ARI symptoms were taken to modern health providers. This decline was apparent in non-RSDP areas as well, from 44.4 percent of children in 1998 to 25.3 percent of children in 2001. A large percentage sought care from pharmacies and traditional practitioners. In 2001 in the project areas, 74.6 percent of the children who had ARI sought treatment from any source, as compared to 67.6 percent in 1998. Among those who sought care from any source, only 1.5 percent received treatment from a RSDP provider in 1998 and 0.4 percent in 2001.

Figure 7.8 Trends in ARI prevalence and treatment seeking behavior, 1998 and 2001



Children in the lowest asset quintiles were more likely to report symptoms of illness in the 2 weeks prior to the survey than children in higher asset quintiles. This is perhaps unsurprising, as lower socioeconomic status is likely to correspond to poor hygiene, worse living conditions, or worse sources of water and sanitation. In RSDP project areas, approximately 18 percent of children in the lowest asset quintile reported symptoms of ARI, as compared with 12.0 percent of children in the highest asset quintile (Figure 7.9).

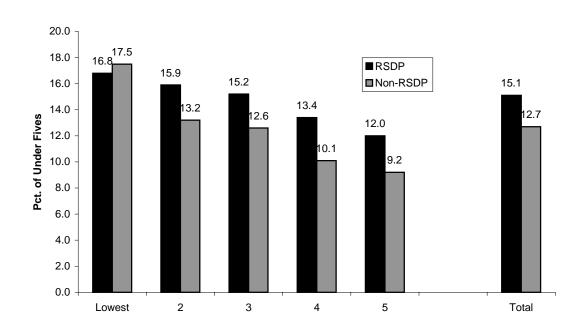


Figure 7.9 ARI Prevalence, Last 2 Weeks, by Asset Quintile, RSDP and non-RSDP areas

#### **Knowledge of Proper ARI Treatment**

Acute respiratory infection, primarily pneumonia, is a common cause of illness and death during infancy and childhood. For ARI management, the knowledge and role of mothers are very important. The percentage of women who knew the proper treatment for ARI is tabulated by selected background characteristics is given in Table7.13C.

**Asset Quintile** 

Among women in RSDP project areas, the principal reported methods for treating ARI were consulting a doctor (71.5 percent), taking the child to a health facility (28.7 percent), treatment with medicine at home (16.5 percent) and seeking treatment from a pharmacy (8.3 percent). Similar patterns could be seen in the responses of non-RSDP women.

There were few variations in responses by division. However, the education level of the mother did appear to influence the selection of the type of treatment for ARI management. Mothers with higher levels of education were more likely to consult a doctor or take the child to a health facility for the treatment of ARI than those with no education or lower level of education. A higher proportion of mothers with less education felt that the preferred treatment for their children with ARI was administering medicine at home.

Table 7.13C Knowledge of proper ARI treatment

Percent of women who know proper treatment for ARI by selected background characteristics

	Take Child to Health Facility	Consult a Doctor	Pharmacy	Treat with Medicine in Home	Wait for a Few Days for Improvement	Consult Neighbor/ Relative	Nothing	Other	Number of Women
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	28.5 31.0 25.9 37.0 25.1	70.1 75.7 72.5 62.7 77.3	7.9 6.9 9.3 7.9 8.0	13.7 13.8 19.0 20.2 11.9	0.4 0.5 0.7 1.1 0.2	0.8 0.9 0.8 0.5	0.0 0.0 0.1 0.0 0.0	6.7 7.4 8.1 8.1 4.2	785 335 1,811 1,023 1,161
Mother's education No education Primary Secondary Higher Secondary University/College	28.3 29.4 28.3 38.9 31.4	69.6 72.3 75.8 81.8 83.8	8.7 9.4 5.8 3.5 3.4	16.5 15.5 18.3 12.1 11.1	0.8 0.3 0.5 0.0 0.0	0.8 0.6 1.1 0.0 0.0	0.0 0.1 0.0 0.0 0.0	7.6 7.0 5.2 0.8 0.0	3,006 1,203 817 58 31
Source of drinking water Piped Protected well Open well Surface Other	30.3 29.3 28.7 14.6 31.6	82.0 70.9 70.1 85.7 50.9	3.1 8.4 9.6 6.7 6.6	9.0 17.1 10.8 6.6 4.4	0.0 0.7 0.0 0.0 0.0	6.2 0.8 0.0 0.0 2.2	0.0 0.0 0.0 0.0 0.0	0.0 7.0 7.0 4.6 26.3	39 4,765 81 209 22
Total RSDP Area Non-RSDP Area	28.7 24.4	71.5 76.3	8.3 9.0	16.5 14.0	0.6 0.5	0.8 0.7	0.0	6.9 8.3	5,116 1,546

## 7.8 Vitamin A Supplementation

Vitamin A deficiency is the leading cause of preventable childhood blindness. It is also a contributing factor to the severity of several other childhood causes of morbidity and mortality. Deficiency of this crucial micronutrient can be avoided by giving children supplements of vitamin A capsules, usually every six months. Vitamin A supplementation has been included as a part of the child health program in ESP. High-dose vitamin A capsules for all children of age 6-71 months are distributed twice per year (in April-May and October-November) by government and non-government organizations. In addition, during specified National Immunization Days (NID), vitamin A capsules are given to children of age 1-5 years. In the 2001 RSDP evaluation survey, mothers having children of age 1-5 years were asked if their youngest children had received vitamin A capsule in the six months prior to the survey. A question was also asked regarding whether respondents knew why vitamin A is given to children.

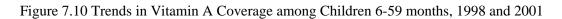
Table 7.14 gives the percentage of children aged 6 to 59 months who were given vitamin A in the last six months by place of residence. In RSDP areas, 66.4 percent of the children received vitamin A as compared with 71.4 percent of children in non-RSDP areas. The percentage of vitamin A recipients by divisions were: 74.8 percent in Rajshahi, 72.4 percent in Khulna/Barisal, 65.3 percent in Dhaka, 63.4 percent in Chittagong and 72.8 percent in Sylhet division.

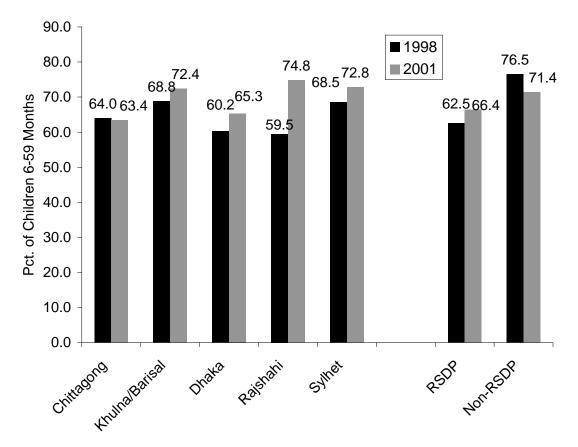
Vitamin A coverage increased in RSDP areas from the 1998 Baseline Survey but decreased in non-RSDP areas (Figure 7.10). For RSDP areas as a whole, vitamin A coverage increased by 3.9 percentage points from 62.5 percent to 66.4 percent of children 6 to 59 months. In non-RSDP areas, the decline was from 76.5 percent to 71.4 percent of children 6 to 59 months.

Table 7.14 Percentage of children receiving vitamin A in the last 6 months

Percentage of children (most recent birth in last 5 years) who were given vitamin A in the last 6 months by region of residence, RSDP and non-RSDP

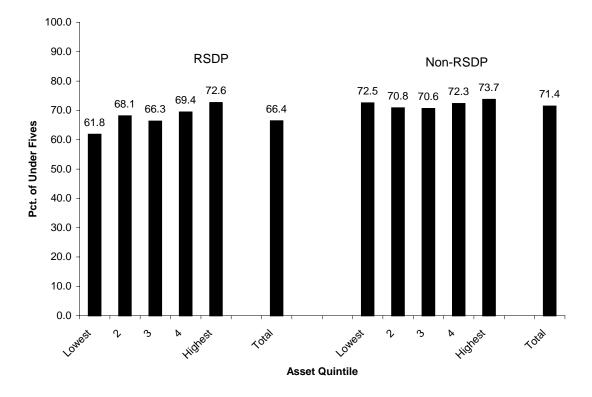
	Yes	No	Don't Know	Total	Number
Chittagong Khulna/Barisal	63.4 72.4	36.1 27.5	0.5 0.2	100.0 100.0	679 287
Dhaka Rajshahi	65.3 74.8	34.1 24.9	0.6 0.2	100.0 100.0	1,546 896
Sylhet	72.8	36.0	0.5	100.0	979
Total RSDP	66.4	33.2	0.4	100.0	4,388
Non-RSDP	71.4	28.2	0.4	100.0	1,321





Vitamin A consumption in the 6 months preceding the survey by children under 5 years of age is also positively associated with socioeconomic status of the household (Figure 7.11). In RSDP areas, the proportion of children receiving vitamin A was 10.8 percentage points lower in the lowest asset quintile (61.8 percent) than in the highest asset quintile (72.6 percent). A similar positive relationship between socioeconomic status and vitamin A consumption was less apparent in non-RSDP areas.

Figure 7.11 Vitamin A Received in Last 6 Months, Age Under 5 Years, RSDP and non-RSDP Areas



## **Knowledge of Importance of Vitamin A**

Data in Table 7.15 show the percentage of women by selected background characteristics who knew why vitamin A is given to children. According to the mothers in RSDP areas, vitamin A improves child health (45.1 percent), prevents/resists infection (20.6 percent), and prevents night blindness (17.7 percent). Over a quarter (28.7 percent) had no knowledge of the importance of vitamin A. Knowledge of women in non-RSDP areas about the importance of vitamin A was similar to that in RSDP project areas.

Knowledge of the importance of vitamin A was similar among women in all divisions, except for Rajshahi division where nearly one-quarter of women knew that vitamin A prevents night blindness. Only half as many mothers in Sylhet division knew that vitamin A prevents night blindness. Mother's education was positively correlated with knowledge of the importance of vitamin A. Mothers having higher levels of education were more likely to know why vitamin A is given to children. Over 66 percent of the women having higher secondary or university/college education knew that vitamin A prevents night blindness, while only 12.2 percent of those having no education knew this.

Table 7.15 Knowledge of importance of vitamin A										
· · · · · · · · · · · · · · · · · · ·										
Percentage of women who know why Vitamin A is given to children, by background characteristics										
	Prevent	Prevent/								
Background	Night	Resist	Improve	Other	Don't	Total	Number			
characteristic	Blindness	Infections	child health		Know					
Division										
Chittagong	13.1	16.5	49.0	0.0	32.0	100.0	785			
Khulna/Barisal	17.7	25.4	44.8	0.4	25.4	100.0	335			
Dhaka	19.5	17.3	45.3	0.4	30.1	100.0	1,811			
Rajshahi	24.5	21.6	44.0	0.0	23.2	100.0	1,023			
Sylhet	12.3	26.4	43.4	0.0	29.9	100.0	1,161			
Mother's education										
No education	12.2	20.2	45.6	0.1	32.3	100.0	3,006			
Primary	16.8	22.8	50.1	0.2	24.3	100.0	1,203			
Secondary	34.0	18.3	38.1	0.2	23.6	100.0	817			
Higher Secondary	68.3	3.5	27.5	0.0	15.6	100.0	58			
University/College	66.9	19.9	25.7	0.0	3.6	100.0	31			
Total RSDP Area	17.7	20.6	45.1	0.2	28.7	100.0	5,116			
Non-RSDP Area	22.2	23.2	45.2	0.1	25.8	100.0	1,545			

#### 7.9. Childhood Diarrhea

Dehydration as a result of severe watery diarrhea is a major cause of childhood death. Childhood deaths due to diarrhea can be reduced or controlled through proper action. Administration of oral rehydration solution (ORS) is a simple means of countering the effects of dehydration. In the case of severe diarrhea, advice/treatment from a competent medical practitioner is needed. ORS, developed in Bangladesh more than 30 years ago by the International Center for Diarrheal Disease Research, Bangladesh (ICDDR, B), is currently available in shops and pharmacies in packet form. In the 2001 RSDP evaluation survey, mothers of children under five years were asked whether their children had suffered from diarrhea in the two weeks preceding the survey, what type of treatment, if any, was given and what was the sources of treatment.

#### Prevalence of Diarrhea

Table 7.16 shows the prevalence of diarrhea among children under five years in the two weeks preceding the survey by selected background characteristics. The data show that 6.2 percent of children under five years of age in the RSDP project areas and 4.5 percent of those of non-RSDP areas were reported to have suffered from diarrhea in the two weeks preceding the survey. In 1998, diarrhea prevalence was 12.1 percent in RSDP areas and 11.1 percent in non-RSDP areas. Prevalence was higher among the male children (6.6 percent) as compared with female (5.8 percent). Moreover, diarrhea prevalence rates differed by division. Chittagong (7.6 percent) and Sylhet (7.0 percent) divisions had the highest prevalence rates, and the lowest prevalence rate was in Khulna/Barisal (3.9 percent) division.

As was seen in case of ARI prevalence rate, the mother's education was negatively correlated with the prevalence rate of childhood diarrhea.

Children in the lower asset quintiles were also more likely to report having diarrhea than children in the higher asset quintiles (Figure 7.12). Treatment with ORS or Laban gur was relatively even across the top four quintiles, ranging from 77.3 percent to 81. 8 percent. However, only 64.5 percent of children in the lowest asset quintile were reported to have received ORS/Laban gur.

#### **Treatment of Diarrhea**

Sixteen percent of diarrhea infected children of RSDP project areas and 19.6 percent of those of non-RSDP areas were reported to have been taken to a health provider for diarrhea treatment (Table 7.17). Nearly 67 percent of diarrhea infected children of RSDP areas and 60 percent of those of non-RSDP areas were treated with oral rehydration solution (ORS). Treatment with either ORS or laban gur home solution was 7.9 percentage points higher in RSDP areas (75.4 percent) than in non-RSDP areas (67.5 percent). Almost two-thirds (67.3 percent in RSDP and 65.3 percent in non-RSDP areas) were given more water, one-fifth (20.3 percent in RSDP and 19.8 percent in non-RSDP) were given other liquid, and nearly 41 percent of RSDP areas and 32.9 percent of non-RSDP areas were treated with pill/capsule or syrup (Table 7.17).

As compared with the 1998 Baseline Survey, treatment with ORT has increased by 12.5 percentage points from 62.9 percent of children with diarrhea in the 1998 Baseline Survey (Figure 7.13). Increases were observed in both use of packet ORS (from 53.1 percent to 66.6 percent) and in use of homemade labon gur solution (from 12.6 percent to 24.4 percent). Increases in ORT use were also noted in non-RSDP areas, where ORT use increased from 50.9 percent to 67.5 percent).

Table 7.16 Prevalence of diarrhea

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, RSDP/ non-RSDP  $\,$ 

Background characteristic	Diarrhea in the two weeks preceding the survey	Number of Children
Child's age in months <6 6-11 12-23 24-35 36-47 48-59	4.7 9.8 7.2 5.2 6.3 4.3	464 783 1,146 1,302 1,348 1,100
Child's sex Male Female	6.6 5.8	3,092 3,051
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	7.6 3.9 5.8 5.5 7.0	992 378 2,152 1,163 1,458
Mother's education No education Primary Secondary Higher Secondary University/College	6.3 6.6 5.4 5.1 0.0	3,653 1,447 938 70 34
Source of drinking water Piped Protected well Open well Surface Other	2.9 6.2 6.2 6.6 0.0	42 5,721 102 251 26
Total RSDP Area Non-RSDP Area	6.2 4.5	6,142 1,873

Figure 7.12 Diarrhea Prevalence and Treatment with ORS/Laban gur, by Asset Quintiles, RSDP Areas

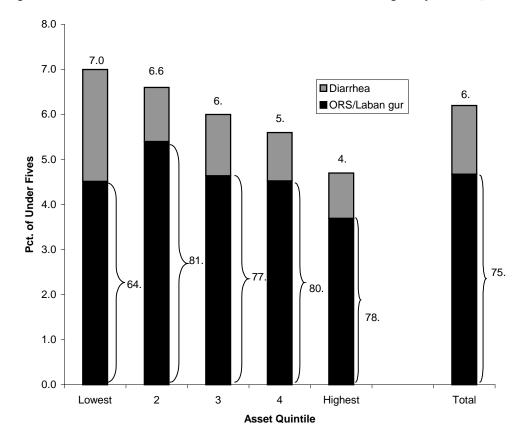


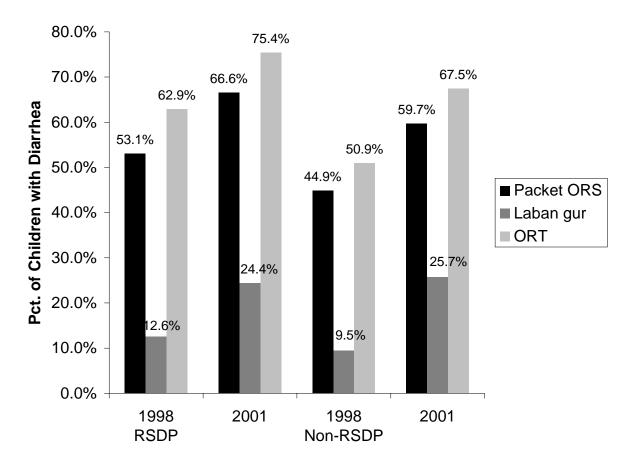
Table 7.17 Diarrhea treatment

Percentage of children under five years who had diarrhea in the two weeks preceding the survey taken for treatment to a health provider, percentage who received oral rehydration therapy (ORT), and percentage given other treatments, according to background characteristics

	Domontono	Oral reh	ydration therap	y (ORT)	Other treatments							
Background characteristic	Percentage taken to a health provider <sup>1</sup>	ORS packets	RHF at home	Either ORS or RHF	Water	Other Liquid	Pill, Capsule or syrup	Injection	Intra- venous solution	Home remedies/ Herbal Medicines	None	Number of children
Child's age in months <6 6-11 12-23 24-35 36-47 48-59	19.8 17.5 15.2 22.6 11.7 11.4	32.0 62.1 76.8 74.1 68.6 57.6	2.1 26.2 26.4 29.4 22.2 24.9	32.0 73.7 83.4 81.2 77.6 72.0	35.3 63.2 71.8 73.9 70.1 66.3	7.0 14.5 22.7 26.6 26.5 11.0	29.6 43.5 48.6 39.4 39.1 32.9	0.0 3.1 2.6 0.0 0.0 0.0	0.0 1.4 2.7 1.3 0.0 2.2	19.3 16.6 8.6 4.8 3.7 3.4	25.0 8.2 2.8 3.0 1.1 7.1	22 76 83 68 85 47
Child's sex Male Female	19.9 11.6	68.6 64.3	23.8 25.1	77.2 73.4	69.1 65.3	19.9 20.7	43.6 37.6	1.7 0.6	2.1 0.6	7.5 9.5	3.8 7.1	203 178
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	12.7 9.2 17.4 4.9 24.7	67.1 56.1 68.9 58.9 69.7	25.8 8.9 25.0 34.3 18.5	77.9 59.0 74.8 79.6 74.1	64.4 55.1 66.9 58.0 77.5	30.5 22.9 17.5 13.0 20.3	32.6 28.6 46.5 39.7 42.4	3.1 0.0 1.7 0.0 0.0	1.4 6.0 0.9 1.7 1.0	9.3 2.9 10.3 6.4 7.5	5.6 7.7 4.1 6.9 5.4	75 15 124 65 102
Mother's education No education Primary Secondary Higher Secondary University/College	13.9 18.1 20.3 34.5	66.5 57.2 82.6 100.0	24.6 23.2 27.6 0.0	75.0 70.7 84.9 100.0	67.3 67.9 63.7 100.0	19.3 21.1 17.7 100.0	39.0 38.8 53.6 34.5	1.5 1.2 0.0 0.0	1.6 1.7 0.0 0.0	7.7 8.0 13.1 0.0	4.4 8.2 4.5 0.0	231 96 50 4
Source of drink water Piped Protected well Open well Surface	0.0 15.8 17.9 20.1	0.0 66.6 51.5 77.7	100.0 25.4 0.0 6.9	100.0 75.7 51.5 77.7	100.0 67.8 51.5 60.3	100.0 20.7 0.0 12.6	0.0 40.5 17.9 60.0	0.0 1.3 0.0 0.0	0.0 1.5 0.0 0.0	0.0 8.4 15.3 7.0	0.0 5.1 15.3 6.3	1 357 6 17
Total RSDP Area	16.0	66.6	24.4	75.4	67.3	20.3	40.8	1.2	1.4	8.4	5.4	381
Non-RSDP Area	19.6	59.7	25.7	67.5	65.3	19.8	32.9	0.0	0.0	7.8	8.2	84

Note: ORT includes solution prepared from oral rehydration salt (OS) packets, recommended home fluids (RHF/sugar-salt water solution/labon-gur sharbat), or increased fluids. Excludes pharmacy, shop and traditional practitioner.

Figure 7.13 Trends in the Percentage of Children with Diarrhea Receiving Diarrhea Treatment, 1998 and 2001



#### **Sources of Diarrhea Treatment**

Table 7.18 gives the percentage distribution of source of treatment for diarrhea in the two weeks preceding the survey. Data show that 49.2 percent of children with diarrhea in RSDP areas were not taken for treatment to a facility/provider. Of the remaining 50.8 percent for whom treatment was sought, almost three-fourths (74.8 percent) received treatment from the private medical sector, 16.7 percent from the public sector, and 3.5 percent received treatment at home. Only 2.3 percent were treated at RSDP facilities. This is nearly the same as the percentage who used RSDP facilities in the 1998 Baseline Survey. Among the private medical sector facilities, traditional doctors (17.4 percent) and pharmacies (12.6 percent) were the two main sources of diarrhea treatment. Thana Health Complex (5.2 percent) was the most common public sector source for diarrhea treatment. Of those who received treatment at home, most were treated by a non-medical person. In all divisions, the private medical sector and public sector facilities were the two main sources used for the treatment of childhood diarrhea.

The rates of use of RSDP clinics for diarrhea treatment differed across divisions. The proportion of children with diarrhea who were taken to an RSDP clinic was highest in Dhaka division (4.3 percent) and lowest in Khulna/Barisul and Rajshahi (0.0 percent) divisions. Small numbers of children with diarrhea, however, make interpretation of differences difficult. Since the 1998 RSDP baseline survey,

utilization of RSDP facilities for diarrhea treatment fell by 1.3 percentage points, from 3.6 percent to 2.3 percent.

In non-RSDP areas, private medical sector (33.6 percent) and public sector (9.4 percent) facilities were also the major sources for receiving diarrhea treatment.

#### **Feeding Practices During Diarrhea**

As mentioned earlier, dehydration as a result of watery diarrhea is a major cause of childhood death. To avoid or control dehydration, a child with diarrhea must receive higher amounts of liquid and food compared with normal intake. Table 7.19 gives the percentage distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquids and food offered as compared with normal practices by selected background characteristics.

More than half (51.3 percent) of children under five in RSDP project areas whose mother reported that they had had diarrhea in the two weeks before the survey were offered more liquid during the illness than normal. More than a quarter (27.6 percent) were given the same amount of liquid and 21 percent were given lesser quantities of liquid as compared with normal practice. Variations by division in feeding practices during diarrhea were not significant. In regard to the amount of food offered during diarrhea as compared with the normal practices, a greater quantity was offered to 23.9 percent, the same amount was offered to 29.4 percent and less quantity was given to 46.7 percent of children.

Feeding practices during diarrhea and the mother's education were correlated. More educated mothers offered greater or the same quantity of liquid to her diarrhea infected child as compared with the normal practice.

Table 7.18 Source of diarrhea treatment

 $Percentage \ distribution \ of source \ of \ treatment \ for \ diarrhea \ in \ the \ two \ weeks \ preceding \ the \ survey \ by \ division \ and \ RSDP/non-RSDP$ 

Source of Treatment	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non- RSDP
Home	3.2	0.0	1.8	1.7	1.1	1.8	0.0
Medical Person at home	0.0	0.0	0.9	0.0	1.1	0.6	0.0
Non-medical person at home	3.2	0.0	0.9	1.7	0.0	1.2	0.0
PUBLIC SECTOR	7.2	6.0	7.9	3.3	13.8	8.5	9.4
Hospital/Medical College	1.6	2.9	0.0	0.0	2.1	1.0	0.0
Family Welfare Center	1.6	0.0	0.9	1.6	3.2	1.7	3.6
Thana Health Complex	3.2	0.0	7.0	1.7	7.4	5.2	4.8
Rural Dispensary/Comm. Clinic	0.0	3.0	0.0	0.0	1.0	0.4	0.0
Satellite Clinic/EPI Outreach Site	0.9	0.0	0.0	0.0	0.0	0.2	0.0
Health Assistant	0.0	0.0	0.0	0.0	0.0	0.0	1.0
RSDP NGO	1.5	0.0	4.3	0.0	2.2	2.3	0.7
Static Clinic	0.0	0.0	2.5	0.0	0.0	0.8	0.7
Satellite Clinic	1.5	0.0	0.9	0.0	0.0	0.6	0.0
Depotholder	0.0	0.0	0.8	0.0	2.2	0.9	0.0
Other NGO	0.8	0.0	0.0	0.0	0.0	0.2	0.0
Fieldworker	0.8	0.0	0.0	0.0	0.0	0.2	0.0
Private Medical Sector	34.6	22.0	41.4	39.7	37.7	38.0	33.6
Private clinic/Doctor	3.1	3.2	4.4	1.6	7.6	4.5	9.5
Traditional Doctor	18.9	15.9	18.2	25.3	10.7	17.4	10.0
Pharmacy	11.2	0.0	16.3	6.3	15.1	12.6	11.9
Homeopathic Doctor	1.4	2.9	2.6	6.4	4.3	3.5	2.2
Not taken for treatment/provider	52.6	72.0	44.6	55.4	45.2	49.2	56.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Children	75	15	124	65	102	381	84

Table 7.19 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquids and food offered compared with normal practice, by selected background characteristics, RSDP/ non-RSDP

		Amount of Liquid Offered				Amount of Food Offered				Number	
Background Characteristics	Same	More	Less	Don't Know	Total	Same	More	Less	Don't Know	Total	of Children
Characteristics	Same	More	Less	KIIOW	Total	Same	More	Less	Kilow		Cilidicii
Child's age in months											
<6	38.4	36.3	25.3	0.0	100.0	33.2	19.9	47.0	0.0	100.0	22
6-11 12-23	25.0 22.8	43.2 59.7	31.8 17.5	0.0	100.0 100.0	31.6 24.7	28.6 31.3	39.8 44.0	3.0	100.0 100.0	76 83
24-35	22.8	59.7	17.5 19.9	$0.0 \\ 0.0$	100.0	24.7 19.6	31.3 17.7	62.8	0.0 0.0	100.0	68
36-47	24.0	58.3	17.8	0.0	100.0	38.3	18.5	43.2	0.0	100.0	85
48-59	38.9	45.8	15.3	0.0	100.0	30.5	23.5	46.0	0.0	100.0	47
						2 3.0					
Child's sex											
Male	26.8	52.8	20.4	0.0	100.0	28.2	25.3	46.5	0.0	100.0	203
Female	28.6	49.6	21.7	0.0	100.0	30.8	22.2	47.0	0.0	100.0	178
Division											
Chittagong	27.1	46.7	26.2	0.0	100.0	40.2	17.5	42.4	0.0	100.0	75
Khulna/Barisal	26.5	58.2	15.3	0.0	100.0	20.6	42.4	37.0	0.0	100.0	15
Dhaka	33.2	52.2	14.6	0.0	100.0	30.9	20.9	48.2	0.0	100.0	124
Rajshahi	22.1	48.3	29.6	0.0	100.0	25.0	33.4	41.6	0.0	100.0	65
Sylhet	24.9	54.6	20.4	0.0	100.0	23.7	23.5	52.8	0.0	100.0	102
Made at a decide											
Mother's education No education	35.1	47.9	20.6	0.0	100.0	31.7	20.3	48.0	0.0	100.0	231
Primary	28.0	51.0	20.0	0.0	100.0	31.7	20.3	40.9	0.0	100.0	96
Secondary	11.2	64.5	24.4	0.0	100.0	14.1	32.6	53.2	0.0	100.0	50
Higher Secondary	0.0	100.0	0.0	0.0	100.0	34.5	33.6	32.0	0.0	100.0	4
University/College		100.0	0.0	0.0	100.0	00	22.0	02.0		100.0	·
Source of drinking water	0.0	100.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	1
Piped	0.0 27.3	100.0 51.7	$0.0 \\ 21.0$	$0.0 \\ 0.0$	100.0 100.0	0.0	0.0 23.3	100.0	0.0 0.0	100.0 100.0	357
Protected well Open well	48.5	17.9	33.7	0.0	100.0	29.9 30.6	23.3 17.9	46.83 51.5	0.0	100.0	
Surface	48.5 29.2	53.2	33.7 17.6	0.0	100.0	20.0	40.1	39.9	0.0	100.0	6 17
Burrace	27.2	33.2	17.0	0.0	100.0	20.0	70.1	37.7	0.0	100.0	1 /
Total RSDP Area	27.6	51.3	21.0	0.0	100.0	29.4	23.9	46.7	0.0	100.0	381
Non-RSDP Area	34.2	42.1	21.4	2.3	100.0	25.5	17.9	55.9	0.7	100.0	84

## **Knowledge of Proper Treatment of Diarrhea**

It is recommended that children should be given more liquids to drink during diarrhea and food should not be reduced. Feeding practices during diarrhea depends largely on the awareness of mothers.

Table 7.20 gives percentage distribution of women who know how to respond to diarrhea, according to selected background characteristics. Among the responding mothers of RSDP areas, for diarrhea management of their children, 86.8 percent are in favor of offering ORS packets, another 57.8 percent prefer home made ORS, and 55 percent are in favor of consulting a doctor/health facility, 12.7 percent like to offer more liquid and 7.3 percent prefer to give more food. The responses of the women of non-RSDP areas on this issue are almost identical.

There seems to be no variation in the knowledge level among the respondents of different divisions who said that they know how to respond to diarrhea.

Table 7.20 Knowledge of proper diarrhea treatment

Percentage of women who know how to respond to diarrhea, according to background characteristics

Background characteristic	Give Home ORS	ORS packets	Consult doctor/ health facility	Give More Liquid	Give More Food	Give Breast Milk	Other	Number of Women
Division Chittagong Khulna/Barisal Dhaka Rajshahi	52.8	87.0	52.9	15.7	9.7	3.1	0.3	785
	65.1	91.4	63.5	14.9	10.8	5.2	0.0	335
	59.6	90.2	49.3	14.9	6.8	1.8	0.4	1,811
	67.1	87.3	49.1	11.7	7.4	3.1	0.3	1,023
Sylhet	48.1	79.6	68.1	7.3	5.5	1.6	0.9	1,161
Mother's education No education Primary Secondary Higher Secondary University/College	59.5	85.1	55.2	9.8	4.4	1.3	0.5	3,006
	57.4	87.8	54.9	14.0	7.2	1.9	0.5	1,203
	53.8	91.2	54.4	19.4	15.5	6.3	0.3	817
	37.5	86.8	54.7	25.0	32.5	13.0	0.0	58
	54.6	96.2	60.7	29.8	32.4	10.6	0.0	31
Source of drinking water Piped Protected well Open well Surface Other	20.6 58.6 44.7 51.8 55.7	94.3 87.1 83.5 79.4 95.6	16.3 55.4 52.2 54.1 60.1	21.5 12.8 12.3 7.2 15.4	53.3 7.2 4.1 2.6 13.2	6.2 2.4 1.4 0.9 6.6	0.0 0.5 0.0 0.5 0.0	39 4,765 81 209 22
Total RSDP Area Non-RSDP Area	57.8	86.8	55.0	12.7	7.3	2.4	0.4	5,116
	59.3	89.5	54.6	17.3	11.0	3.3	0.7	1,546

Note: ORT includes solution prepared from oral rehydration salt (ORS) packets, recommended home fluids (RHF), or increased fluids.

<sup>1</sup>Excludes pharmacy, shop and traditional practitioner.

## **CHAPTER 8. INFANT FEEDING**

This chapter covers the following related topics: infant feeding including initiation of breastfeeding, patterns and duration of breastfeeding, and complementary foods.

Infant feeding affects both the mother and the child. It affects mothers on the period of postpartum infertility, and hence the length of the birth interval and fertility levels. The child is affected through its effect on nutritional status.

## 8.1 Initiation of Breastfeeding

Infant feeding is important for proper physical and mental development of the child. It is recommended that children be fed colostrom (the first breast milk) immediately after birth and continue to exclusively feed at the breast, because it provides natural immunity for the child.

Table 8.1 shows the proportion of children born in the five years preceding the survey who were ever breastfed, and the proportion who started breastfeeding within one hour and within one day of birth. The results are given by selected background characteristics and information was collected from mothers. According to the 2001 RSDP Evaluation Survey, of the children living in RSDP project areas born in the last five years, 97.6 percent are ever breastfed, but only 25.4 percent started breastfeeding within one hour of birth and 67.8 percent started breastfeeding within one day of birth. Variations in the breastfeeding practices by sex and division are minimal.

Initiation of breastfeeding seems to be related to the level of maternal education and place of delivery. Mothers with higher levels of education are more likely to start breastfeeding within one hour or one day of birth. Of the children having college/university-educated mothers, 34.1 percent have received breast milk within one hour of birth, and 77.4 percent received breast milk within one day of birth. The corresponding percentages are 21.7 percent and 64.1 percent among those having mothers with no education. Higher proportions of children delivered at health facilities receive breast milk within one hour (34.3 percent) or one week (68.0 percent) of birth compared with those delivered at home (25 percent within one hour and 67.8 percent within one week of birth.

The prevalence of breastfeeding and timing of initiation in non-RSDP areas are similar to that of RSDP project areas.

Table 8.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, percentage who started breastfeeding within one hour and within one day of birth by background characteristics

	_		e who started			
Background of	Percentage		eeding:	Number of		
Characteristics	ever breastfed	Within 1	Within 1 day	Children		
-		hour of birth	of birth <sup>1</sup>			
Sex						
Male	97.5	25.1	68.6	2,624		
Female	97.7	25.6	67.0	2,492		
Division						
Chittagong	98.1	25.7	79.4	785		
Khulna/Barisal	97.4	25.8	67.1	335		
Dhaka	97.3	19.7	56.7	1,811		
Rajshahi	96.9	21.3	58.6	1,023		
Sylhet	98.3	37.3	85.3	1,161		
Mother's education						
No education	97.6	21.7	64.1	3,006		
Primary	97.7	29.3	73.3	1,203		
Secondary	97.4	31.7	72.3	817		
Higher Secondary	100.0	43.1	71.4	58		
College/University	94.6	34.1	77.4	31		
Assistance at delivery						
Health professional <sup>2</sup>	94.2	35.1	72.1	277		
Traditional birth attendant	98.0	25.3	67.4	4,266		
Other	95.9	22.0	66.6	505		
No one	100.0	15.1	55.1	68		
Place of delivery						
Health facility	93.9	34.3	68.0	198		
At home	97.7	25.0	67.8	4,910		
Other	84.5	35.9	80.9	7		
Total RSDP	97.6	25.4	67.8	5,116		
Total non-RSDP	97.5	25.0	71.1	1,546		

Table is based on all births whether the children are living or dead at the time of interview.

<sup>&</sup>lt;sup>1</sup> Includes children who started breastfeeding within one hour of birth.

<sup>&</sup>lt;sup>2</sup>Doctor, nurse/midwife, or auxiliary midwife

# 8.2 Exclusive Breast Feeding and Timing of Introduction of Supplementary Foods

Tables 8.2A and 8.2B give the proportion of youngest children under three years of age by breastfeeding status, according to age in months for RSDP and non-RSDP areas. Table 8.2A shows that in the RSDP project areas, the prevalence of exclusive breastfeeding is 37.9 percent in children less than six months of age and only 7.9 percent in those 6-9 months old. The exclusive breast feeding rate is higher among the newborn, 54.2 percent among children aged less than two months, and the rate falls to 11.6 percent among children aged 6-7 months. The prevalence of exclusive breastfeeding is slightly higher in non-RSDP areas than in RSDP areas.

The timing of the introduction of food supplements in addition to breast milk has important implications for the child and the mother. Mothers from RSDP project and non-project areas were asked if their youngest child, who was less than three years old and living with them, had been given plain water, water-based liquids/juice, other milk and complementary foods (solids and semi-solids) anytime during the 24 hours prior to the interview. Table 8.2A shows that children aged below six months (and living in RSDP project areas) received plain water (12.1 percent), water-based liquids/juices (12.6 percent), other or non-breast milk (17.7 percent), and complementary solid or semi-solid foods (19.3 percent), in addition to breast milk. Among newborns less than two months of age, the majority (54.2 percent) are exclusively breastfed, with only 3.9 percent receiving supplementary liquids or food.

Although the practice of giving supplementary food or liquids to young children varies by division, the patterns of food supplementation are similar. Compared to the other divisions, Sylhet (6.4 percent) and Dhaka (6.2 percent) had higher proportions of newborns age less than two months receiving complementary solid or semi-solid foods.

The proportion of exclusive breastfeeding among newborns aged below two months is higher (57.6 percent) in non-RSDP areas compared with RSDP (54.2 percent) areas. Similarly, a higher proportion of the same age group received complementary solid or semi-solid foods in the non-RSDP area (12 percent) compared to the RSDP area (3.9 percent).

Table 8.2A Breastfeeding status by age – All RSDP

Percent distribution of youngest children under three years by breastfeeding status according to age in months, RSDP areas

			]	Breastfeeding ar	Total	Number		
Age in months	Not breastfeeding	Exclusively breastfed	Plain water only	Water-based liquids, juice	Other milk	Comple- mentary foods		of Children
	0.0		44.4	10.0	10.7	2.0	1000	4.05
<2	0.0	54.2	11.4	18.0	12.5	3.9	100.0	107
2-3	0.6	39.2	11.1	9.4	23.5	16.2	100.0	155
4-5	0.2	28.4	13.3	12.3	15.9	29.8	100.0	201
6-7	1.0	11.6	18.1	9.2	14.6	45.5	100.0	261
8-9	1.3	5.0	14.7	5.8	7.9	65.3	100.0	331
10-11	0.3	2.9	12.8	1.7	4.8	77.4	100.0	187
12-15	3.9	2.0	8.2	3.8	1.6	80.5	100.0	301
16-19	2.6	0.8	6.5	1.8	0.1	88.2	100.0	382
20-23	6.3	1.1	3.5	0.3	0.3	88.5	100.0	406
24-27	15.1	0.2	0.8	0.0	0.0	84.0	100.0	298
28-31	23.5	0.3	1.5	0.3	0.6	73.9	100.0	376
32-35	26.0	0.3	0.6	0.2	0.5	72.4	100.0	423
<6	0.3	37.9	12.1	12.6	17.7	19.3	100.0	462
6-9	1.1	7.9	16.2	7.3	10.8	56.6	100.0	592

Note: See note on breastfeeding status in Table 8.2A.

Table 8.2B Breastfeeding status by age - non-RSDP

Percent distribution of youngest children under three years by breastfeeding status according to age in months, non-RSDP areas

			Total	Number				
Age in months	Not breastfeeding	Exclusively breastfed	Plain water only	Water-based liquids, juice	Other milk	Comple- mentary foods		of Children
	0.0	57.6	10.6	10.0	<b>5</b> .6	12.0	100.0	20
<2	0.0	57.6	12.6	12.2	5.6	12.0	100.0	30
2-3	0.0	47.0	14.8	9.3	15.6	13.2	100.0	71
4-5	0.0	24.5	12.7	10.2	18.8	33.8	100.0	57
6-7	1.1	13.6	18.9	3.9	21.0	41.5	100.0	80
8-9	3.8	5.3	13.1	4.5	8.9	64.4	100.0	67
10-11	3.8	1.6	7.6	2.0	5.0	80.0	100.0	80
12-15	1.5	0.0	5.5	1.5	6.5	85.0	100.0	95
16-19	8.7	2.5	5.4	0.0	1.0	82.4	100.0	137
20-23	11.8	2.9	3.0	0.0	0.7	81.6	100.0	125
24-27	17.1	0.0	0.0	0.0	1.0	82.0	100.0	90
28-31	34.2	0.0	0.9	0.0	0.0	65.0	100.0	98
32-35	32.6	0.0	0.0	0.0	1.5	65.9	100.0	110
<6	0.0	41.0	13.6	10.2	14.8	20.4	100.0	158
6-9	2.3	9.8	16.3	4.2	15.5	51.9	100.0	146

Note: See note on breastfeeding status in Table 8.2A.

UNICEF and WHO recommend that children be exclusively breastfed (no complementary liquid or solid food or plain water) during the first 6 months of life and that children be given solid (semi-solid) complementary food beginning with the seventh month of life. The standard timely complementary feeding indicator is the percentage of children age 6-9 months who are breastfeeding and receiving complementary foods. Giving other milk to children is acceptable after the first 6 months, but it is recommended that breastfeeding be continued through the second year of life.

#### 8.3 Duration of Breast Feeding

Duration of breastfeeding has been estimated using median and mean. Table 8.3 gives the median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding in the five years preceding the survey among children that live with the mother, by selected background characteristics.

The overall median length of any breastfeeding in RSDP project areas is 38 months with some variation by background characteristics, such as place of residence. Median duration of any breastfeeding depends on the educational level of the mothers, with the median duration declining with increasing levels of education. The median duration of any breastfeeding is 40 months among the last-born children with mothers having no education, while median length is 29 months among those having university/college-educated mothers. The mean length of any breastfeeding in RSDP project areas is 40.7 months.

The median and mean lengths of exclusive breastfeeding are found to be 1.2 and 3.7 months respectively. A child is considered predominantly breastfed if he/she is either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice only (excludes other milk). The median and mean lengths of predominant breastfeeding in RSDP project areas are 4.4 and 8.1 months, respectively.

In non-RSDP areas, the median and mean lengths of any breastfeeding among the last-born children in the five years preceding the survey are 39 and 39.6 months respectively. The median and mean lengths of exclusive breastfeeding are 1.6 and 4.3 months, respectively. Likewise, the median and mean lengths of predominant breastfeeding are estimated at 4.7 and 7.8 months, respectively.

Table 8.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, predominant breastfeeding among last-born children in the five years preceding the survey and living with the mother, by selected background characteristics<sup>1</sup>

	Medi	an duration (month	ns) of breastfeeding	
Background characteristic	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding <sup>2</sup>	Number
Sex Male Female	38.0 39.0	1.2 1.2	3.8 5.1	2,479 2,372
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	28.0	2.8	5.3	743
	38.0	2.1	4.5	320
	39.0	0.6	3.9	1,716
	41.0	1.9	3.5	975
	38.0	1.5	5.1	1,097
Mother's education No education Primary Secondary Higher Secondary University/College	40.0	1.2	5.2	2,831
	37.0	1.6	4.9	1,148
	38.0	0.7	3.0	785
	25.0	0.4	0.4	58
	29.0	1.6	1.6	29
All children – RSDP	38.0	1.2	4.4	4,851
Mean for all children	40.7	3.7	8.1	
All-children- non-RSDP	39.0	1.6	4.7	1,479
Mean for all children	39.6	4.3	7.8	

Note: Median and mean duration based on current status

<sup>&</sup>lt;sup>1</sup>Excludes children who do not have a valid answer on the number of times breastfed

<sup>&</sup>lt;sup>2</sup>Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice only (excludes other milk)

#### CHAPTER 9. AWARENESS AND USE OF NIPHP CLINICS

To better understand the effectiveness and impact of the RSDP service delivery system through its network of static clinics, satellite clinics, and depotholders, it is essential to know whether the populations in the program areas are aware of the location and operating schedule of RSDP static and satellite clinics, as well as the types of services available in those clinics. This chapter assesses, among women who were ever married and aged 10-49 years, the knowledge and awareness of RSDP health service providers/facilities and their services and the utilization of these facilities/providers for ESP services tabulated by selected background characteristics.

Respondents' awareness of the service providers/facilities sheds light on the effectiveness of the program and its outreach strategies. The data will also reveal which sources of services are attractive to clients and the reasons for the clients' choices.

## 9.1 Awareness of Temporary/Satellite Clinics

Women who were ever married were asked whether they knew of a temporary/satellite clinic in their area of residence. If they had knowledge, they were then asked if the temporary/satellite clinic was held during the past 3 months and, if so, the type of clinic. This set of questions was also asked in the 1998 Baseline Survey. Tables 9.1A and 9.1B presents these proportions by background characteristics for the RSDP and non-RSDP areas, respectively.

Table 9.1A shows that 80.7 percent of respondents in the RSDP project areas were aware of temporary clinics in their areas, and of these, 88.3 percent indicated that these clinics were conducted in their area during the past three months. Among those who knew of a satellite clinic held in the last three months, approximately 87 percent identified the temporary clinic as an RSDP satellite clinic. Almost 10 percent (9.6 percent) identified the temporary clinic as a different type.

Awareness of temporary clinics did not vary much across age or educational level of the respondents. However, currently married women (81.1 percent) were slightly more aware of temporary clinics as compared with widowed women (74.8 percent). Awareness was highest in Khulna/Barisal and Rajshahi but lowest in Sylhet division.

Knowledge and awareness of temporary/satellite clinics was considerably lower among women in non-RSDP areas (Table 9.1B) compared to women in RSDP areas (Table 9.1A). Only 53.4 percent of women in non-project areas were aware of temporary clinics. Of these women, 81.2 percent reported that temporary clinics were held in their areas in the last three months, and 87.2 percent identified those clinics as government temporary/satellite clinics. Knowledge varied across educational level with highly educated women less aware of temporary clinics. It is possible that educated women preferred other types of clinics/hospitals for their reproductive health care. Nearly all of the identified temporary clinics in non-RSDP areas were government-owned (87.2 percent), while 6.6 percent of the identified clinics were RSDP satellite clinics. The latter non-zero percentage is most likely because non-RSDP areas were chosen from thanas adjacent to RSDP thanas.

Table 9.1A Knowledge and awareness of temporary/satellite clinics in RSDP areas

Percentage of women who know of temporary/satellite clinic in their areas, who know whether the clinic was held in the past 3 months and type of temporary/satellite clinic held in the past three months, by background characteristics, RSDP areas

					Type of Temporary/Satellite Clinic						
Background Characteristics	Awareness of temporary/ satellite clinic	Number of Women	Clinic held in last 3 months?	Number of Women Knowing of Temporary Clinics	RSDP	Govern- ment	Other	Don't Know	Total	Number of Women Reporting Clinics in Last 3 Months	
Age 15-19 20-24 25-29	75.5 81.9 83.5	1,393 1,710 1,728	88.0 89.3 88.9	1,052 1,401 1,442	87.1 89.6 87.1	9.9 7.9 9.7	2.9 2.3 3.2	0.1 0.2 0.1	100.0 100.0 100.0	926 1,251 1,282	
30-39 40-49	82.9 81.3	1,606 3,012	88.6 87.1	1,331 2,449	87.3 86.5	9.7 10.4	2.8 3.1	0.2 0.0	100.0 100.0	1,179 2,134	
Marital status Currently Married Separated Deserted Divorced Widowed	81.1 78.2 79.7 77.9 74.8	8,986 87 43 120 390	88.6 86.8 85.6 80.4 82.8	7,283 68 34 93 292	87.6 90.3 94.3 80.7 83.6	9.6 7.7 4.2 12.4 10.7	2.7 2.0 1.5 6.9 5.7	0.1 0.0 0.0 0.0 0.0	100.0 100.0 100.0 100.0 100.0	6,453 59 29 75 242	
Education No education Primary Secondary Higher Secondary University/College	80.7 81.9 79.4 76.7 81.4	5,766 2,202 1,497 104 56	88.0 89.6 87.0 87.2 92.9	4,655 1,802 1,188 80 46	87.8 87.4 85.7 85.2 90.9	9.3 9.5 11.0 14.2 9.1	2.8 3.0 3.1 0.6 0.0	0.1 0.1 0.2 0.0 0.0	100.0 100.0 100.0 100.0 100.0	4,096 1,616 1,034 69 43	
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet Total RSDP	78.6 84.2 81.1 84.2 76.1	1,361 713 3,413 2,227 1,911 9,625	82.8 91.5 88.7 92.9 84.0	1,071 600 2,769 1,875 1,456	83.4 89.2 88.9 87.0 86.9	15.6 6.4 8.8 7.0 12.1	0.7 4.3 2.3 5.7 1.0	0.3 0.0 0.0 0.2 0.0	100.0 100.0 100.0 100.0 100.0	886 549 2,457 1,743 1,222	

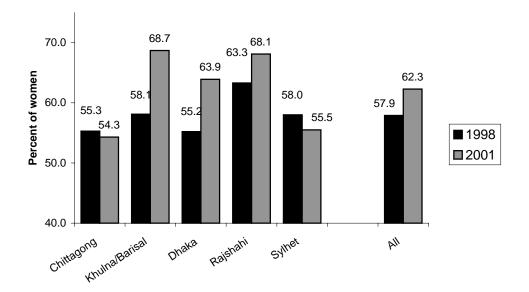
Table 9.1B Knowledge and awareness of temporary/satellite clinics in non-RSDP areas

Percentage of women who know of temporary/satellite clinic in their areas, who know whether the clinic was held in the past 3 months and type of temporary/satellite clinic held in the past three months, by background characteristics, non-RSDP areas

					Type of Temporary/Satellite Clinic					
Background Characteristics	Awareness of temporary/ satellite clinic	Number of Women	Clinic held in last 3 months	Number of Women Knowing of Temporary Clinics	RSDP	Govern- ment	Other	Don't Know	Total	Number of Women Reporting Clinics in Last 3 Months
Ago										
Age 15-19	47.3	427	79.4	202	10.0	86.1	3.9	0.0	100.0	160
20-24	52.5	569	81.8	299	6.6	86.2	6.6	0.6	100.0	244
25-29	53.2	553	82.9	294	4.4	87.2	8.4	0.0	100.0	244
30-39	57.9	481	83.1	278	6.7	87.2	5.7	0.4	100.0	231
40-49	54.7	1,049	79.7	574	5.7	88.9	5.2	0.2	100.0	457
Marital status										
Currently Married	53.3	2,921	80.9	1,558	6.4	87.4	5.9	0.3	100.0	1,261
Separated	57.3	32	73.3	79	0.0	82.5	17.5	0.0	100.0	14
Deserted	30.9	13	100.0	4	0.0	100.0	0.0	0.0	100.0	4
Divorced	66.1	31	89.6	21	15.9	84.1	0.0	0.0	100.0	19
Widowed	52.6	124	85.6	65	9.6	84.6	5.8	0.0	100.0	56
Education										
No education	56.5	1,690	83.1	955	5.5	88.1	6.4	0.0	100.0	793
Primary	52.6	766	80.2	403	8.0	86.2	5.2	0.6	100.0	323
Secondary	47.0	576	77.5	271	9.0	85.0	5.2	0.7	100.0	210
Higher Secondary	46.3	66	78.1	31	2.8	90.9	6.4	0.0	100.0	24
University/College	30.8	24	43.2	7	0.0	100.0	0.0	0.0	100.0	3
Total non-RSDP	53.4	3,122	81.2	1,667	6.6	87.2	5.9	0.3	100.0	1,353

Awareness of RSDP satellite clinics has increased since the 1998 Baseline Survey. For RSDP areas as a whole, 62.3 percent of women know of a RSDP satellite clinic that had been conducted in the past 3 months. This is an increase of 4.4 percentage points since the baseline survey in 1998, when 57.9 percent of women knew of an RSDP satellite clinic conducted in their area of residence during the 3 months prior to the survey. The largest increase in awareness was in Khulna/Barisal, where awareness increased from 58.1 percent to 68.7 percent. A slight decline was observed in Chittagong and Sylhet, where awareness decreased by 1 and 2.5 percentage points, respectively.

Figure 9.1 Awareness of RSDP Satellite Clinics, 1998 and 2001



## 9.2 Knowledge of ESP Services at Satellite Clinics

The respondents who were aware of temporary/satellite clinics were asked what types of services were available at the clinics. Again, this set of questions was also asked in the 1998 Survey. Table 9.2 gives the proportions of women who knew of satellite clinics in their area, reported that the clinics were held during the past three months, and were able to identify specific types of services available at those clinics.

A large proportion of women in the RSDP areas who identified RSDP satellite clinics were aware that these clinics provide services on family planning (71.0 percent), maternal health (76.3 percent) and child health (81.0 percent). However, only 19.4 percent knew that RSDP satellite clinics provide general health care.

In the RSDP areas, only 39.8 percent of women who attended government temporary clinics were aware of the availability of family planning services compared to 71 percent of those attending RSDP satellite clinics. However, awareness of maternal health (77.2 percent), child health (91.6 percent), and EPI (86.5 percent) services was quite high for those using government clinics.

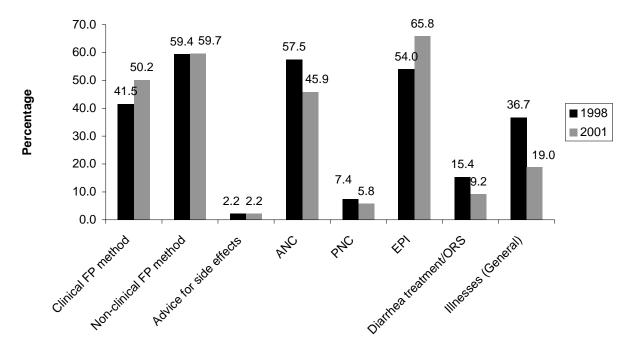
Awareness of healthcare services provided by the government clinics was similar between women who lived in RSDP areas and those who lived in non-RSDP areas.

Table 9.3 presents the percentage of women who knew of satellite clinics in their area and reported the clinic was held in the last 3 months that identify ESP services available at those satellite clinics by selected

background characteristics. In RSDP areas, the proportion of women who reported the availability of family planning, maternal health, and child health services at satellite clinics are 66.2, 76.5, and 82.3 percent, respectively. In the non-RSDP areas, the proportions were similar with respect to all but the family planning services, which was lower at 38.3 percent.

Awareness of several services at RSDP satellite clinics has improved since the 1998 Baseline Survey. For example, the proportion of women reporting that EPI services are offered at RSDP satellite clinics increased from 54.0 percent to 65.8 percent, while the proportion reporting availability of clinical family planning methods increased from 41.5 percent to 50.2 percent. Awareness of other services – antenatal care, ORS and general care for illnesses declined.

Figure 9.2 Percentage of Women who identify RSDP satellite clinics and identify specific services at those clinics



<u>Table 9.2 Knowledge of ESP services at temporary/satellite clinics</u>

Percentage of women who identify specific services at temporary/satellite clinic, total RSDP/ non-RSDP areas

-	Total RSDP			Non-RSDP				
	RSDP	GOB	Other	DK	RSDP	GOB	Other	DK
	SC	SC			SC	SC		
Family planning	71.0	39.8	12.6	15.6	52.6	38.8	15.0	53.8
Clinical method	50.2	24.4	7.1	15.6	39.6	23.8	10.1	53.8
Non-clinical method	59.7	30.8	11.4	0.0	45.0	31.8	9.0	53.8
Advice for side effects	2.2	1.4	0.0	0.0	1.9	1.7	0.0	0.0
Maternal Health	76.3	77.2	80.7	57.7	68.4	78.5	81.3	46.2
ANC	45.9	26.8	13.8	15.6	43.2	26.6	11.3	26.9
PNC	5.8	6.2	2.1	0.0	1.7	2.6	0.0	0.0
TT	56.2	67.5	71.8	42.1	46.3	71.7	76.1	19.3
Child Health	81.0	91.6	93.9	71.4	89.4	94.6	98.9	46.2
EPI	65.8	86.5	88.0	71.4	67.9	88.4	92.8	46.2
Diarrhea treatment/ORS	9.2	4.4	2.0	0.0	11.0	4.6	3.8	0.0
ARI Treatment	1.0	1.0	0.8	0.0	0.0	1.2	0.0	0.0
Vitamin A	17.0	19.9	32.3	27.4	21.6	21.7	19.5	19.3
Illnesses (General)	19.0	11.5	11.1	13.7	22.2	16.2	13.7	0.0
Other child care	2.6	2.2	2.8	13.7	4.7	1.9	2.2	0.0
Other reproductive	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Treatment of RTI/STD	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General health	19.4	11.0	4.6	0.0	33.9	18.1	7.9	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Do so not les ou	2.2	1.5	1.2	20.6	1.0	1 /	0.0	0.0
Does not know	2.3	1.5	1.2	28.6	1.9	1.4	0.0	0.0
Number of Women	5,993	660	197	7	89	1,181	80	3
INUITION OF AN OFFICE	3,773	000	17/	,	09	1,101	80	3

RSDP SC = RSDP Satellite Clinic; GOB SC = Government of Bangladesh Satellite Clinic; Oth=Other satellite clinic; DK = Don't know type of satellite clinic

Note: denominator consists of women who knew of satellite clinics that were held in their area of residence during the past three months.

Table 9.3 Knowledge of ESP services

Percentage of women who can name ESP services at satellite clinics, by selected background characteristics, RSDP/non-RSDP areas.

Background characteristic	Family Planning	Maternal Health	Child Health	Other Reproductive Health	Number
Age 15-19 20-24 25-29 30-39 40-49	63.8 71.2 70.1 65.7 62.6	76.9 80.1 78.0 77.0 73.8	80.4 84.5 82.8 80.5 83.0	0.2 0.0 0.3 0.0 0.2	926 1,251 1,282 1,179 2,134
Marital status Currently Married Separated Deserted Divorced Widowed  Education	66.9 64.5 48.1 47.5 56.2	76.9 60.6 73.2 61.8 75.7	82.4 84.6 76.4 80.3 81.0	0.1 0.0 0.0 0.6 0.9	6,453 59 29 29 75 242
No education Primary Secondary Higher Secondary University/College	66.2 66.6 64.9 75.8 73.5	75.5 75.8 80.7 85.4 88.2	82.2 82.1 84.5 67.4 74.6	0.1 0.2 0.2 0.0 0.0	4,096 1,616 1,034 69 43
Number of Living Children 0 1 2 3 4+	57.2 68.0 69.1 67.3 65.2	72.6 79.8 79.0 76.7 73.9	75.3 83.5 83.8 82.0 82.9	0.3 0.1 0.2 0.1 0.1	627 1,262 1,501 1,303 2,165
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	69.2 79.2 65.1 72.3 52.0	70.8 75.2 75.6 76.7 82.8	75.5 76.5 82.8 83.6 87.3	0.1 0.2 0.0 0.3 0.0	886 549 2,457 1,743 1,222
Total RSDP Total non-RSDP	66.2 38.3	76.5 77.9	82.3 94.4	0.1	6,858 1,353

Note: Numerator is the number of women knowing of a specific service as available; denominator consists of women who know of satellite clinics that were held in their area of residence during the past three months.

#### 9.3 Use of Temporary/Satellite Clinics

Unlike in the 1998 Baseline Survey, women in the 2001 Survey who knew of a temporary/satellite clinic, which was conducted in their area of residence during the past 3 months, were asked if they had ever used the clinic and, if so, if they had used it in the past 3 months. This latter set of questions was used to elicit information on satisfaction with care while reducing the possibility of recall bias from use in the distant past. Women who did not identify a clinic or did not report a clinic as being conducted in their area in the past 3 months were assumed to have not used the clinics. This is admittedly a cumbersome selection process for examining use of RSDP services, but obviously women who were unaware of a satellite clinic cannot be asked if they used services at a satellite clinic. Further, asking questions about use of any satellite clinic, as compared with simply asking about use of RSDP satellite clinics, allows for comparisons in satisfaction and quality between RSDP clinics and non-RSDP clinics.

Table 9.4 shows the proportion of women using available clinics, by selected background characteristics. In the RSDP areas, 35.6 women used the RSDP satellite clinics for ESP services at least once (ever used) and 15.7 percent used the RSDP satellite clinics for ESP services during the three months preceding the survey. Ever use of RSDP satellite clinics was higher in the Khulna/Barisal (40.1 percent) and Rajshahi (39.1 percent) divisions and lowest in the Chittagong (31.7 percent) division.

As expected, a higher proportion of women in the non-RSDP areas (23.9 percent) than in RSDP areas (4.0 percent) had ever used government satellite clinics. Likewise, women residing in non-RSDP areas (7.7 percent) were more likely than women from the RSDP areas (1.3 percent) to use government clinics within the previous 3 months.

<u>Table 9.4 Usage of temporary/satellite clinics</u>
Percentage of women who have ever used satellite/temporary clinic and used the clinic during the past 3 months, by selected background characteristics, RSDP/ non-RSDP areas

Characteristics, RSD1		Used Tempor	ary/Satellite (	Clinic	Used Ten	nporary/Satel Mont		n Past 3	
Background characteristic	RSDP Satellite Clinic	Govern- ment Clinic	Other Satellite Clinic	Don't Know Type of Clinic	RSDP Satellite Clinic	Govern- ment Clinic	Other Satellite Clinic	Don't Know Type of Clinic	Number of Women
Age 15-19 20-24 25-29 30-39 40-49	34.6 46.7 44.1 36.8 25.6	4.1 4.3 4.8 4.5 3.2	1.3 1.1 1.5 1.2 0.6	0.1 0.1 0.0 0.1 0.1	16.2 21.6 18.8 17.1 10.0	1.4 1.2 1.9 1.5 0.8	0.4 0.1 0.2 0.3 0.2	0.1 0.0 0.0 0.0 0.0	1,393 1,710 1,728 1,606 3,012
Marital status Currently Married Separated Deserted Divorced Widowed	37.2 19.2 22.4 8.1 12.5	4.2 1.3 0.0 3.7 1.1	1.1 1.4 1.1 0.0 0.6	0.1 0.0 0.0 0.0 0.0	16.5 2.5 11.4 3.1 4.2	1.3 0.0 0.0 1.9 0.3	0.2 1.4 0.0 0.0 0.2	0.0 0.0 0.0 0.0 0.0	8,986 87 43 120 390
Division Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	31.7 40.1 35.5 39.1 32.8	5.7 2.7 3.8 3.1 4.7	0.2 1.9 0.8 2.3 0.3	0.2 0.0 0.0 0.1 0.0	11.7 17.6 17.0 18.2 12.7	1.9 0.8 1.3 0.8 1.6	0.0 0.2 0.1 0.6 0.2	0.0 0.0 0.0 0.0 0.0	1,361 713 3,413 2,227 1,911
Education No education Primary Secondary Higher Secondary University/College	34.4 39.8 34.5 26.8 37.0	3.9 4.0 4.6 2.9 5.8	0.9 1.3 1.4 0.4 0.0	0.1 0.0 0.2 0.0 0.0	15.1 18.1 14.8 10.2 20.4	1.4 1.0 1.3 0.0 0.0	0.2 0.3 0.4 0.0 0.0	0.0 0.0 0.0 0.0 0.0	5,766 2,202 1,497 104 56
Total RSDP Total non-RSDP	35.6 1.6	4.0 23.9	1.0 1.3	0.1 0.1	15.7 0.6	1.3 7.7	0.2 0.2	0.0	9,625 3,122

Note: Numerator is the number of women having ever used or used a temporary/satellite clinic in the past 3 months; denominator consists of women who know of satellite clinics that were held in their area of residence during the past three months.

#### 9.4 Essential Service Package (ESP) Services Ever Used at Temporary/Satellite Clinics

Women who reported a temporary/satellite clinic in their area of residence, that the clinic had been held in the past 3 months and that they had ever attended the clinic, were asked which services they had ever used at the temporary/satellite clinic. Table 9.5 shows the proportion of these women who had ever used specific ESP services at temporary/satellite clinics by RSDP divisions and total RSDP/non-RSDP areas. It is important to note that, because of the structure of the questionnaire, it is not possible to make conclusions about use and non-use of all types of clinics by all types of women. Women were permitted to describe experiences at a maximum of one type of temporary clinic. This does not mean that they had no experiences at other types of temporary clinics.

In the RSDP areas, the proportion of women who reported ever attending an RSDP satellite clinic and ever using the following healthcare services were as follows: family planning (37 percent), maternal health (43 percent), child health (55.2 percent), and EPI (45 percent). Of women who lived in the RSDP area and went, instead, to government satellite clinics, only 11.9 percent used family planning services whereas 69.1 percent used EPI services.

Table 9.5 ESP services ever used at temporary/satellite clinics

Percentage of women who have ever used specific services at temporary/satellite clinic by RSDP/non-RSDP area

among women who have ever gone to a temporary/satellite clinic of that type

		Total F	RSDP			Non-	RSDP	
ESP services	RSDP SC	GOB	Other	DK	RSDP	GOB	Other	DK
		SC			SC	SC		
Family Planning	37.0	11.9	3.3	0.0	28.7	13.6	0.0	50.0
Clinical Method	25.6	7.4	1.2	0.0	19.5	7.5	0.0	50.0
Non-clinical method	14.2	5.0	2.1	0.0	9.2	7.7	0.0	0.0
Advise for Side Effects of	1.2	0.6	0.0	0.0	0.0	0.5	0.0	0.0
Treatment								
Maternal Health	43.0	42.6	43.5	67.4	52.5	47.6	34.1	50.0
ANC	19.9	8.7	10.3	18.0	27.8	7.0	3.8	50.0
PNC	1.2	0.7	1.0	0.0	0.0	0.2	0.0	0.0
TT	32.5	37.9	35.2	49.4	36.8	45.1	30.3	0.0
	52.6	0,.,	00.2	.,	20.0		20.2	0.0
Child Health	55.2	77.5	76.3	84.3	38.0	73.5	90.7	50.0
EPI	45.0	69.1	68.6	84.3	30.2	64.9	85.2	50.0
Diarrhea	2.8	2.5	2.5	0.0	0.0	2.6	0.0	0.0
Treatment/ORS ARI Treatment	0.4	0.0	0.4	0.0	0.0	0.1	0.0	0.0
Vitamin A	8.6	11.2	22.1	15.7	3.0	9.8	7.3	0.0
Illnesses (General)	7.0	7.7	5.4	0.0	7.6	8.9	9.2	0.0
Other Child Care	0.9	2.1	1.9	0.0	0.0	0.5	0.0	0.0
General Health	10.4	5.5	3.1	0.0	16.6	10.6	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Number of Women	3,426	385	100	6	50	745	42	2

 $RSDP\ SC = RSDP\ Satellite\ Clinic;\ GOB\ SC = Government\ of\ Bangladesh\ Satellite\ Clinic;\ Oth = Other\ satellite\ clinic;\ DK = Don't\ know\ type\ of\ satellite\ clinic$ 

Note: Numerator is the number of women having ever used a specific service at a temporary/satellite clinic;

Denominator is all women who have ever gone to a temporary/satellite clinic

#### 9.5 Use of ESP Services at Satellite Clinics in Most Recent Visit in past 3 months

Women who attended a satellite clinic in the past 3 months were asked what services they had used during their most recent visit. Table 9.6 shows the services that the respondents used, by type of clinic, division, and RSDP/non-RSDP areas. Because these numbers reflect only users of clinic services, they should be similar to the shares of each type of service in routine reporting of clinic service statistics. These data, however, should be interpreted with caution due to small cell numbers, particularly with regard to non-RSDP satellite clinics.

In RSDP areas, the most common reason for using RSDP satellite clinics during the past 3 months was for family planning services, particularly clinical methods of family planning. Nearly half of all users of RSDP satellite clinics sought family planning services and 36.8 percent sought clinical family planning methods. In addition, 31.2 percent sought child health care, with 21.3 percent seeking EPI services for their children. However, only 5.4 and 2.4 percent, respectively, of women sought care for general childhood illnesses and childhood diarrhea.

A comparison of RSDP satellite clinics in RSDP areas with one of their closest substitute, government clinics in non-RSDP areas, revealed that family planning services were less important at government satellite clinics. Only 18.6 percent of those attending government satellite clinics in non-RSDP areas sought family planning services, as compared with 49.5 percent of users of RSDP satellite clinics in RSDP areas. Furthermore, over half of government clinic users (55.7 percent) sought child health services, with 41.5 percent seeking EPI services and 4.0 percent seeking treatment for childhood illnesses. Maternal health care is also an important service and was sought by 22.0 percent of government clinic users.

<u>Table 9.6 ESP services used in most recent visit in past 3 months at temporary/satellite clinics – by division in RSDP non-RSDP areas</u>

Percentage of women who have used specific services in most recent visit in past 3 months at temporary/satellite clinic by RSDP/ non-RSDP.

		Total I	RSDP			Non-	-RSDP	
	RSDP SC	GOB SC	Other	DK	RSDP SC	GOB SC	Other	DK
Family Planning	49.5	18.3	9.7	0.0	39.3	18.6	0.0	100.0
Clinical Method	36.8	11.9	0.0	0.0	34.8	9.8	0.0	100.0
Non-clinical method	12.4	6.4	9.7	0.0	4.5	8.4	0.0	0.0
Advise for Side Effects of Treatment	0.9	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Maternal Health	16.4	18.1	14.9	100.0	37.5	22.0	15.8	0.0
ANC	9.5	1.8	0.0	0.0	20.3	1.1	15.8	0.0
PNC	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TT	9.1	17.2	14.9	100.0	33.0	21.0	0.0	0.0
Child Health	31.2	64.4	69.7	0.0	23.2	55.7	84.2	0.0
EPI	21.3	47.9	43.2	0.0	18.7	41.5	68.5	0.0
Diarrhea Treatment/ORS	2.4	4.2	5.3	0.0	0.0	3.3	0.0	0.0
ARI Treatment	-	-	-	-	-	-	-	-
Vitamin A	3.5	8.3	21.2	0.0	4.5	11.5	0.0	0.0
Illnesses (General)	5.4	4.6	0.0	0.0	0.0	4.0	15.8	0.0
Other Child Care	0.7	3.9	4.6	0.0	0.0	0.9	0.0	0.0
Treatment of RTI/STD								
General Health	8.3	2.9	5.7	0.0	0.0	9.6	0.0	0.0
Number of Women	1,511	122	21	1	19	239	5	1

RSDP SC = RSDP Satellite Clinic; GOB SC = Government of Bangladesh Satellite Clinic; Oth=Other satellite clinic; DK = Don't know type of satellite clinic

Note: Numerator is the number of women having used a specific service at a temporary/satellite clinic in the past 3 months; Denominator is all women who have ever gone to a clinic

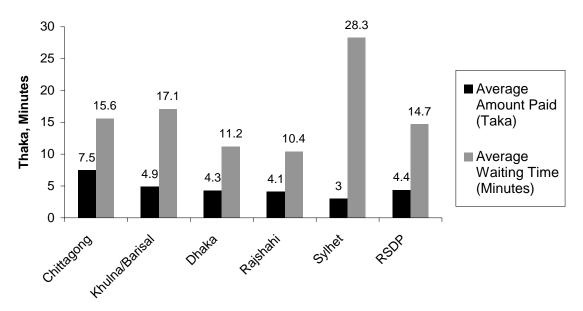
#### 9.6 Assessments of Quality of Care at Temporary/Satellite Clinics

Women who used temporary/satellite clinics in the past 3 months answered questions about the quality of care that they received during their most recent visit. The questions addressed payments, staff behavior, waiting time, and quality of care, and the responses are reported in Table 9.7 by total RSDP/non-RSDP area.

The mean expenditure at RSDP satellite clinics in RSDP areas was 4.4 Taka (Table 9.7, Figure 9.3). About half of the RSDP satellite clinic users in RSDP areas considered this to be a reasonable amount. Furthermore, one-third (34.4 percent) reported that the services were free. Although the mean waiting time for service at the RSDP satellite clinics was 14.7 minutes, a large proportion of users (57 percent) reported not having to wait. Satisfaction with care was high for all types of satellite clinics, with over 98 percent of all satellite clinic users (in the RSDP areas) rating the staff behavior, quality of services, and cleanliness of clinics as good or very good. Further, over 99 percent said that they would recommend the clinic to others. In the non-RSDP areas, satisfaction with care in the RSDP and government satellite clinics was comparable to that in the RSDP areas.

Caution should be taken when interpreting levels of satisfaction. Clinic users comprise a sample of women who have chosen to attend the clinics, and therefore, may have made an a priori decision that the quality of care, price of care and waiting time at those clinics were reasonable and/or met their needs. Non-users, who were not asked questions about quality, may have decided that the expected quality was too low to meet their needs or expectations, that prices were too high or unaffordable, or that waiting times were too long. There is little that can be done to address this bias other than to compare the characteristics and motivations of clinic users and non-users. This analysis will be performed in later work.

Figure 9.3 Mean Expenditure (Taka) and Mean Waiting Times (Minutes) Among Users of RSDP Satellite Clinics



<u>Table 9.7 Quality of temporary/satellite clinics</u>

User's perceptions of quality of treatment at temporary/satellite clinics in most recent visit in past 3 months for total RSDP and non-RSDP areas

**RSDP** Non-RSDP **RSDP Satellite** Government Other Satellite Don't Know/ **RSDP Satellite** Government Other Satellite Don't know/ **Quality Indicators** Missing Clinic Satellite Clinic Clinic Missing Clinic Satellite Clinic Clinic Average Amount Paid 4.4 1.4 0.1 0.0 2.6 0.2 5.5 0.0 Cost of Treatment 84.0 95.2 44.9 98.7 100.0 Free 34.4 100.0 68.5 0.0 0.0 Low 8.2 1.4 0.0 0.3 0.0 0.0 Reasonable 10.9 0.0 0.0 42.7 31.5 0.0 46.8 1.1 10.7 3.7 4.8 12.4 0.0 0.0 High 0.0 0.0 Mean Waiting time at Clinic (in minutes) 14.7 14.4 0.0 14.3 9.9 2.4 0.0 2.6 Assessment of Length of wait No wait 57.0 75.5 100.0 54.9 59.8 100.0 61.3 84.2 Low 5.0 3.8 0.0 0.0 15.8 2.4 0.0 0.0 29.7 7.9 30.7 0.0 Reasonable 30.3 19.6 0.0 15.8 High 7.7 5.2 4.9 0.0 21.3 7.1 0.0 0.0 Staff Behavior Bad 1.3 1.9 0.0 0.0 0.0 0.4 0.0 0.0 100.0 79.7 100.0 Good 91.5 93.5 100.0 94.0 100.0 Very Good 7.2 0.0 0.0 20.3 0.0 4.6 5.6 0.0 **Ouality of Services** 0.0 1.2 1.8 0.0 0.0 0.0 0.3 0.0 Bad Good 100.0 79.7 95.4 100.0 93.0 94.5 100.0 100.0 Very Good 5.8 3.7 0.0 0.0 20.3 4.3 0.0 0.0 Cleanliness of Clinic 0.9 0.9 0.0 Bad 1.8 0.0 0.0 4.5 0.0 94.8 Good 95.2 92.6 100.0 100.0 83.1 100.0 100.0 Very Good 5.5 12.4 0.0 4.0 0.0 0.0 4.3 0.0 Recommend Clinic to Others 99.2 99.6 100.0 100.0 100.0 99.6 100.0 100.0 Yes No 0.8 0.4 0.0 0.0 0.0 0.4 0.0 0.0 Number of Women 1.511 122 21 19 5 1 239 1

#### 9.7 Awareness of Sources of Health and Family Planning Services

Table 9.8 gives the proportion of women who knew of a clinic or hospital in the area in which they live from which they could obtain health or family planning services, by RSDP project and non-project areas. As with satellite clinics, this set of questions was also asked in the 1998 Baseline Survey. In summary, 87.3 percent of women in RSDP areas knew of a clinic or hospital in their area of residence from where they could obtain health and family planning services. In non-RSDP areas, a large proportion (92.8 percent) of women were also aware of such a clinic or hospital. Overall, awareness was highest among the women of Khulna/Barisal (93.6 percent) and lowest among those in Chittagong (72.6 percent).

Table 9.8. Awareness of clinics and hospitals in the area from which women can get health or family planning services

Percentage of women who know of a clinic or hospital in the area in which they live from which one can obtain health or family planning services, RSDP/ non-RSDP areas

	Yes	No	Total	Number of Women
Chittagong Khulna/Barisal Dhaka Rajshahi Sylhet	72.6 93.6 89.2 88.8 90.2	27.4 6.4 10.8 11.2 9.8	100.0 100.0 100.0 100.0 100.0	1,361 713 3,413 2,227 1,911
Total RSDP	87.3	12.7	100.0	9,625
Total non-RSDP	92.8	7.2	100.0	3,122

# 9.8 Type of Clinics Identified as Providing Health or Family Planning Services

Women who knew of a clinic or hospital in their area, which provided health or family planning services were asked about the type of clinic or hospital. Table 9.9 gives the distribution of facility types for all women by division and RSDP/non-RSDP areas.

Most women were able to identify a source for their health or family planning services. Among women in RSDP project areas, 76.4 percent identified public sector sources, 8.6 percent identified RSDP sources and the remainder either failed to identify or identified other sources as providing health and family planning services. Among the public sector sources, Thana Health Complexes (39.9 percent), family welfare centers (27.2 percent) and hospital/medical college hospitals (6.0 percent) were the major sources. More women identified RSDP static clinics (8.1 percent) than satellite clinics (0.5 percent) as a source of health and family planning services.

In the non-RSDP areas, public sector sources were identified by 83.4 percent of respondents, while only 6.0 percent of women identified RSDP clinics as providing health and family planning services. In neither the RSDP nor the non-RSDP areas were private medical centers identified as major sources of health or family planning services.

Table 9.9 Type of clinic identified as providing health and family planning services

Distribution of identified facility types for all women by division and RSDP/non-RSDP areas

Type of clinic/hospital	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non- RSDP
Public Sector Hospital/Medic. College Family Welfare Center Thana Health Complex MCWC Rural Dispensary/	66.1	76.3	77.9	78.4	78.8	76.4	83.4
	4.2	2.1	3.2	8.4	10.7	6.0	3.5
	24.6	33.7	25.5	28.6	27.8	27.2	38.8
	35.9	34.4	45.4	38.1	37.0	39.9	38.1
	0.5	1.7	0.1	0.8	0.7	0.6	0.3
Community clinic  RSDP Static Clinic Satellite clinic Other NGO	0.9 3.4 2.0 1.4 0.0	4.5 16.5 15.4 1.0	3.6 8.7 8.5 0.2	2.5 8.9 8.5 0.4	2.5 9.1 8.8 0.3	2.8 8.6 8.1 0.5	2.8 6.0 6.0 0.0
Hospital Clinic  Private Medical Center Private Clinic/Doctor Traditional Doctor Pharmacy	0.0	0.0	0.2	1.1	0.6	0.4	0.9
	0.0	0.0	0.0	0.1	0.7	0.2	0.5
	1.8	0.7	2.3	0.2	0.9	1.4	2.0
	1.6	0.7	2.2	0.1	0.8	1.2	1.8
	0.2	0.0	0.1	0.0	0.1	0.1	0.1
	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Other1 Don't Know Type Number of Women	1.3	0.1	0.0	0.0	0.0	0.2	0.0
	27.4	6.4	10.9	11.3	9.8	12.8	7.2
	1,361	713	3,413	2,227	1,911	9,625	3,122

Note: Numerator is number of women identifying specific facility types; Denominator is all women.

Identification of RSDP static clinics as sources of health or family planning services was lower in the 2001 Survey than in the RSDP Baseline Survey in 1998. For RSDP areas as a whole, only 8.1 percent of women identified RSDP static clinics, as compared with 10.4 percent of women in 1998. Only in Khulna/Barisal and Sylhet did a higher proportion of women identify RSDP static clinics in 2001 than in 1998.

Differences in the questions from 1998 and 2001 may partly explain the decline. In the baseline survey, respondents had only 3 choices for clinics/hospitals – RSDP static clinics, government clinics or other. The option of RSDP static clinic was listed first. In the 2001 baseline survey, clinics were disaggregated into different types of government hospitals or clinics, RSDP static or satellite clinics, other NGO clinics and private medical facilities. RSDP static clinics were not listed first.

#### 9.9 Knowledge of ESP Services at Hospitals/Clinics

Women were asked if they were aware of different ESP services at the facilities they mentioned as serving the areas in which they live. Table 9.10 gives the proportion of women who identified specific ESP services at different types of hospitals/clinics, by domain of residence and RSDP/non-RSDP areas.

Most respondents in RSDP areas who identified RSDP static clinics knew that these clinics provided family planning methods. Approximately 74 percent knew that family planning methods were available, and 61.8 percent knew that clinical family planning methods were available. The majority of women also reported that RSDP static clinics provide maternal health (66.7 percent) and child health (76.7 percent) services. Less commonly mentioned was the provision of vitamin A, which was mentioned by only 5.6 percent of women.

In RSDP areas, women who identified government hospitals/clinics compared to those who identified RSDP clinics were more likely to report general health services (60.4 percent versus 44.8 percent, respectively) and general treatment of childhood illnesses (52.8 percent versus 42.2 percent, respectively). However, women identifying government hospitals or clinics were less likely to report other services such as family planning (56.4 percent), maternal health (42.7 percent), EPI (20.9 percent), and tetanus toxoid vaccinations (22.6 percent).

Table 9.10 Knowledge of ESP services at hospital/clinics (continued)

Percentage of women who identify specific services at different types of hospitals/clinics by division and total RSDP/non-RSDP areas

Services		Total R	SDP			Non-I	RSDP	
	RSDP	GOB	Oth	Private	RSDP	GOB	Oth	Private
	SC	SC			SC	SC		
Family Planning	74.0	56.4	47.9	32.8	61.7	59.0	51.2	31.4
Clinical Method	61.8	47.4	38.2	23.1	45.3	48.2	38.3	25.9
Non-clinical method	58.5	40.0	25.1	17.2	51.5	44.1	26.8	11.0
Advise for Side Effects of	36.3	40.0	23.1	17.2	31.3	44.1	20.6	11.0
Treatment	4.1	2.3	1.9	6.7	3.6	2.7	0.0	4.2
Maternal Health	66.7	42.7	30.5	54.8	58.8	44.7	75.2	55.6
ANC	44.4	28.0	15.3	47.8	36.7	27.2	61.9	45.0
PNC	6.7	8.2	9.4	37.5	3.4	5.8	13.4	9.7
TT	45.0	22.6	13.4	13.0	39.6	28.6	49.2	19.0
Child Health	76.7	72.9	73.2	66.0	71.7	75.3	80.4	69.6
EPI	47.2	20.9	19.4	6.9	41.7	28.1	24.1	11.1
Diarrhea Treatment/ORS	13.8	23.9	26.5	26.4	18.1	23.2	7.6	24.9
ARI treatment	2.6	3.5	3.9	1.7	4.7	4.2	7.3	2.7
Vitamin A	5.6	3.0	5.8	2.6	4.2	3.9	12.8	2.9
Illnesses (General)	42.2	52.8	52.0	49.4	34.3	49.8	53.0	60.1
Other Child Care	3.3	3.4	4.0	2.9	1.2	2.7	10.4	1.0
Treatment of RTI/STD	1.0	0.3	0.0	1.2	0.8	0.2	0.0	0.0
General Health	44.8	60.4	65.6	64.4	47.7	69.2	66.2	79.9
Other	3.1	2.4	2.0	12.1	0.8	3.5	3.9	27.2
Does not Know	3.5	4.9	3.8	4.1	10.6	3.5	0.0	1.4
Number of women	832	7354	57	130	188	2,604	44	62

RSDP SC = RSDP Static Clinic; GOB SC = Government of Bangladesh Clinic/Hospital; Oth=Other clinic Note: Numerator is the number of women identifying specific services; Denominator is the number of women identifying hospital/clinic offering health or family planning services in the area in which she lives.

## 9.10 Identification of ESP services at Static Clinics

Table 9.11 gives the proportion of women who could name ESP services by selected background characteristics. Varying proportions of women in the RSDP areas knew that the hospital/clinic in their area of residence provides family planning (50.3 percent), maternal health (39.4 percent), child health (63.9 percent) and other reproductive health (0.3 percent) services. Knowledge about the availability of childcare was higher among those who had at least one child.

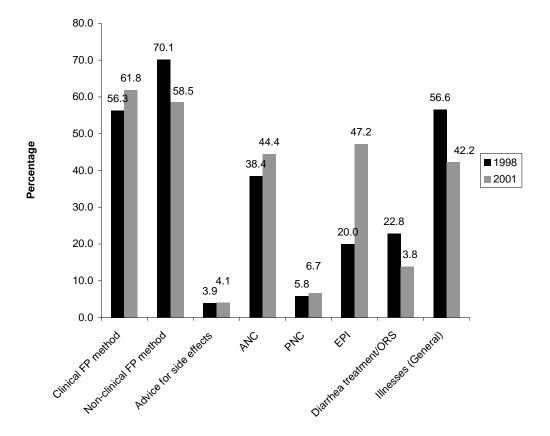
Table 9.11 Knowledge of ESP services

Percentage of women who can name ESP services, by selected background characteristics

Background characteristic	Family Planning	Maternal Health	Child Health	Other Reproductive Health	Number
Age					
15-19	42.9	39.6	62.4	0.2	1,393
20-24	51.0	43.1	64.2	0.5	1,710
25-29	54.3	41.6	66.8	0.3	1,718
30-39	53.3	39.2	65.7	0.4	1,606
40-49	50.6	36.8	62.6	0.2	3,012
Marital status					
Currently Married	50.9	40.0	64.2	0.3	8,986
Separated	48.5	29.8	37.0	0.0	87
Deserted	46.4	29.9	54.8	0.0	43
Divorced	36.1	31.3	51.1	0.0	120
Widowed	40.8	31.2	59.9	0.6	390
Education					
No education	49.1	35.0	62.9	0.2	5,766
Primary	50.3	41.8	63.1	0.4	2,202
Secondary	53.0	49.9	67.1	0.5	1,497
Higher Secondary	64.9	61.7	80.0	1.5	104
University/College	67.4	70.5	71.9	0.0	56
No. of Living Children					
0	39.5	36.0	52.9	0.4	1,090
1	48.4	43.7	67.7	0.3	1,713
2	55.1	41.4	68.1	0.4	2,049
3	54.0	40.3	64.6	0.3	1,738
4 +	49.7	36.2	62.5	0.2	3,034
Division					
Chittagong	42.9	34.5	48.6	0.0	1,361
Khulna/Barisal	67.0	43.5	69.8	0.6	713
Dhaka	49.4	39.2	65.3	0.2	3,413
Rajshahi	59.8	44.3	68.8	0.5	2,227
Sylhet	39.6	35.8	64.1	0.3	1,911
Total RSDP	50.3	39.4	63.9	0.3	9,625
Total non-RSDP	54.3	42.9	69.7	0.2	3,122

Awareness of several services at RSDP static clinics has improved since 1998 (Figure 9.4). In particular, awareness of EPI services has increased from 20.0 percent of women to 47.2 percent of women who identify RSDP clinics. Smaller increases were observed for clinical family planning methods – from 56.3 percent to 61.8 percent – and antenatal care – from 38.4 percent to 44.4 percent. Declines were noted for non-clinical family planning methods, ORS and treatment of general illnesses.

Figure 9.4. Percentage of Women who identify RSDP static clinics and identify specific services at those clinics, 1998 and 2001



### 9.11 Use of Static Clinics/Hospitals

Women who identified clinics or hospitals in the area in which they live were asked whether they had ever used that hospital/clinic and whether they had used it in the 3 months prior to the survey. Table 9.12 provides the percentages of women by division and RSDP and non-RSDP areas. Ever usage and usage of the RSDP static clinics in the previous 3 months among respondents is low across all divisions and total RSDP and non-RSDP areas. For the RSDP areas, only 4.5 percent of women reported ever attending an RSDP static clinic that served their area of residence. This response, however, is not the same as saying that only 4.5 percent of women in RSDP areas have ever used an RSDP static clinic. As with temporary clinics, women were permitted to identify only one hospital or clinic as serving their area. Many women who identified other types of facilities could, at some time, have also used an RSDP clinic. Thus, ever use of RSDP static clinics is likely to be underestimated.

Ever use of RSDP static clinics among women was highest in the Dhaka division (5.3 percent) and lowest in Chittagong (1.2 percent). Even in the non-RSDP areas, RSDP clinics were used by 1.8 percent of women.

Use of an RSDP static clinic in the past 3 months was also low - only 1.7 percent of women in RSDP areas identified an RSDP static clinic that they had used in the past 3 months.

Table 9.12 Use of hospital/clinics

Percentage of women who have ever used hospital/clinic and used clinic in the past 3 months by division and RSDP/non-RSDP areas

			Ever Use	ed Hospital/	Clinic			Used Hospital/Clinic in Past 3 Months						
Type of Hospital/Clinic	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non- RSDP	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non- RSDP
Public Sector	36.2	35.0	40.8	37.4	39.6	38.7	49.9	7.1	6.3	7.7	5.3	8.2	7.1	14.1
Hosp./Medical College	2.7	0.5	1.6	3.5	33.0	2.5	1.5	0.2	0.3	0.1	0.5	0.3	0.3	0.2
Family Welfare Center	12.3	15.1	13.0	13.2	14.8	13.4	24.4	2.1	2.7	2.6	1.7	4.1	2.6	8.9
Thana Health Complex	21.0	16.4	24.4	19.5	20.0	21.3	22.3	4.6	2.1	4.4	2.7	3.4	3.6	4.3
MCWC	0.2	1.0	0.1	0.4	0.5	0.3	0.2	0.1	0.3	0.0	0.0	0.1	0.1	0.0
Rural Dispensary/	0.2	1.0	0.1	0.4	0.5	0.5	0.2	0.1	0.5	0.0	0.0	0.1	0.1	0.0
Community Clinic	0.2	2.0	1.7	0.8	0.6	1.1	1.5	0.2	1.1	0.6	0.3	0.3	0.4	0.7
RSDP	1.6	4.9	5.4	5.0	5.1	4.7	2.8	0.6	1.5	2.6	2.0	1.2	1.8	1.0
Static Clinic	1.2	4.4	5.3	4.8	5.0	4.5	2.8	0.6	1.2	2.5	1.9	1.2	1.7	1.0
Satellite clinic	0.4	0.5	0.1	0.2	0.1	0.2	0.0	0.0	0.3	0.1	0.1	.0.0	0.1	0.0
Other NGO	0.0	0.0	0.1	0.8	0.8	0.4	1.0	0.0	0.0	0.0	0.2	0.4	0.1	0.3
Hospital	0.0	0.0	0.1	0.8	0.2	0.3	0.6	0.0	0.0	0.0	0.2	0.0	0.1	0.2
Clinic	0.0	0.0	0.0	0.0	0.5	0.1	0.4	0.0	0.0	0.0	0.0	0.4	0.1	0.1
Private Medical Center	0.9	0.3	1.6	0.1	0.4	0.8	1.3	0.3	0.0	0.4	0.0	0.1	0.2	0.4
Private Clinic/Doctor	0.9	0.3	1.4	0.1	0.4	0.7	1.2	0.3	0.0	0.3	0.0	0.1	0.2	0.3
Traditional Doctor	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Pharmacy	0.0	0.0	0.0		0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other	0.8	0.1	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0	0.0	0.0	0.1	0.0
Number	1,361	713	3,413	2,227	1,911	9,625	3,120	1,361	713	3,413	2,227	1,911	9,625	3,122

Note: Numerator is the number of women who have ever used or used in the past 3 months a hospital/clinic offering health or family planning services; Denominator is all women

### 9.12 Use of ESP Services at Hospitals/Clinics

Respondents who attended different types of hospitals and clinics were asked what ESP services they had ever used (Table 9.13) and had used within the past 3 months (Table 9.14). For ever users of RSDP clinics in RSDP areas (Table 9.13), the most commonly used services were those for child health (22.8 percent of users), maternal health (19.6 percent) and family planning (21.9 percent). Approximately 15 percent of attendees had used a RSDP static clinic for clinical family planning methods. Further, the use of RSDP clinics (21.9 percent) was twice as high as that of government clinics (10.5 percent) for family planning services. Likewise, a higher proportion of RSDP static clinic users than users of government clinics sought antenatal care (12.2 percent versus 4.7 percent) and tetanus toxoid vaccinations (13.0 percent versus 5.5 percent). In the non-RSDP areas, similar proportions of women used RSDP satellite clinics and government clinics for their family planning services.

When observed over the past 3 months (Table 9.14), approximately 10 percent of RSDP clinic users in RSDP areas sought family planning services, with two-thirds using clinical methods. Only 0.4 percent sought treatment or advice for side effects of family planning. Just over 7 percent of users sought child health services at RSDP clinics, with about half of these seeking EPI services and another half seeking care for general childhood illnesses. In the non-RSDP areas, 7.1 and 4.7 percent, respectively, of respondents attending RSDP clinics sought family planning services and child health services over the past 3 months. Overall, a higher proportion of women used RSDP clinics as opposed to government clinics for their family planning services.

Table 9.13 ESP services ever used at hospital/clinics

Percentage of women identifying a hospital/clinic who have ever used specific services at hospitals/clinics by total RSDP/non-RSDP area

Service		Total	RSDP		Non-RSDP			
Scrvice	RSDP	GOB	NGO	Private	RSDP	GOB	NGO	Private
	SC	SC			SC	SC		
Family Planning	21.9	10.5	5.6	4.7	15.5	16.1	11.3	0.0
Clinical Method	14.7	8.1	3.8	3.5	8.9	11.8	0.0	0.0
Non-clinical method	8.5	2.5	1.8	0.0	5.7	5.2	3.8	0.0
Advise for Side Effects	1.3	0.9	0.0	1.3	3.6	0.9	7.6	0.0
Maternal Health	19.6	9.6	15.2	15.7	16.0	12.1	32.2	19.4
ANC	12.2	4.7	9.5	15.7	8.1	5.3	28.4	13.1
PNC	0.3	0.9	0.0	2.5	0.0	1.0	0.0	1.4
TT	13.0	5.5	7.6	2.5	12.2	8.1	11.3	7.9
Child Health	22.8	24.5	29.0	19.9	16.7	28.8	21.7	30.1
EPI	11.9	4.4	1.9	1.6	8.8	8.3	0.0	6.9
Diarrhea Treatment/ORS	2.6	3.8	3.8	3.5	0.8	4.2	5.7	4.8
ARI Treatment	0.3	1.1	2.0	0.3	0.7	1.6	1.9	1.0
Vitamin A	1.3	0.4	1.9	0.0	0.4	0.9	0.0	2.0
Illnesses (General)	10.3	17.0	21.4	15.2	7.1	17.9	16.0	23.8
Other Child Care	0.7	1.4	1.9	0.9	0.3	1.5	5.3	0.0
Treatment of RTI/STD	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0
General Health	14.7	20.2	32.8	29.5	18.3	28.9	34.2	41.5
Other	0.0	0.3	0.0	0.0	0.0	0.3	0.0	1.0
Number of women	832	7,354	57	130	188	2,604	44	62

Note: Numerator is the number of women who have ever used specific services at a hospital/clinic offering health or family planning services; Denominator is all women identifying a hospital/clinic RSDP SC = RSDP Static Clinic; GOB SC = Government of Bangladesh Clinic/Hospital; Oth=Other clinic

Table 9.14 ESP services used in past 3 months at hospital/clinics

Percentage of women identifying a hospital/clinic who have used specific services in past 3 months at hospitals/clinics, by total RSDP/non-RSDP area

	RSDP Areas				Non-RSDP Areas				
	GOB	RSDP	Other NGO	Private	GOB	RSDP	Other NGO	Private	
Family Planning	1.8	9.4	2.0	0.8	4.8	7.1	3.8	0.0	
Clinical Method	1.2	6.3	2.0	0.8	2.9	6.0	0.0	0.0	
Non-clinical method	0.5	2.7	0.0	0.0	1.6	1.1	0.0	0.0	
Advise for Side	0.5	2.,	0.0	0.0	1.0	1.1	0.0	0.0	
Effects of Treatment	0.2	0.4	0.0	0.0	0.4	0.0	3.8	0.0	
Maternal Health	0.9	2.7	0.0	0.7	1.8	2.5	7.6	0.0	
ANC	0.4	1.9	0.0	0.7	0.5	1.3	3.8	0.0	
PNC	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	
TT	0.6	1.5	0.0	0.0	1.2	2.5	3.8	0.0	
Child Health	4.1	7.3	7.4	8.6	7.6	4.7	3.4	11.6	
EPI	0.7	3.4	1.9	1.6	1.7	2.1	0.0	2.9	
Diarrhea Treatment/ORS	0.6	1.0	0.0	0.0	0.7	0.0	0.0	0.0	
ARI Treatment	0.3	0.1	0.0	0.9	0.4	0.0	0.0	0.0	
Vitamin A	0.1	0.1	5.5	0.0	0.2	0.4	0.0	0.0	
Illnesses (General)	2.7	3.1	0.0	5.1	4.6	2.2	1.9	8.6	
Other Child Care	0.2	0.3	0.0	0.9	0.4	0.0	1.5	1.4	
Treatment of RTI/ STD	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
General Health	3.0	3.0	11.7	5.9	4.7	4.9	7.2	9.0	
Other	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Number of women	7,354	832	57	130	2,604	188	44	62	

Note: Numerator is the number of women who have used specific services in the past 3 months at a hospital/clinic offering health or family planning services; Denominator is all women identifying a hospital/clinic.

RSDP SC = RSDP Static Clinic; GOB SC = Government of Bangladesh Clinic/Hospital; Oth=Other clinic

## 9.13 Assessments of Quality of Care at Hospitals/Clinics

Users of hospitals and static clinics in the past three months answered questions about the quality of care that they received during their most recent visit. Table 9.15 presents data on the respondents' perceptions of the quality of treatment at the hospitals/clinics, by total RSDP/non-RSDP areas.

In the RSDP areas, the mean expenditure at RSDP clinics was 8.8 Taka (Table 9.15, Figure 9.5). Approximately 15 percent of users of RSDP clinics reported that the services were free of charge while 65 percent reported the cost of treatment was reasonable. Although the mean waiting time at RSDP clinics was 18.5 minutes, 44.5 percent of users did not have to wait for service. The majority of users rated staff behavior (99.3 percent) and quality of services (98.7 percent) as good or very good and almost all of them (99.4 percent) would recommend the hospital/clinics to others. Comparable levels of satisfaction with the quality of service and staff behavior at the RSDP clinics were observed in non-RSDP areas.

The average cost of treatment is higher in government clinics than in RSDP clinics in both RSDP areas (33.9 Taka versus 8.8 Taka, respectively) and non-RSDP areas (10.9 Taka versus 7.7 Taka, respectively). The mean waiting time was also slightly higher in government clinics compared to RSDP clinics in both project and non-project areas.

Figure 9.5 Mean Expenditure (Taka) and Mean Waiting Times (Minutes) for Users of RSDP Static Clinics

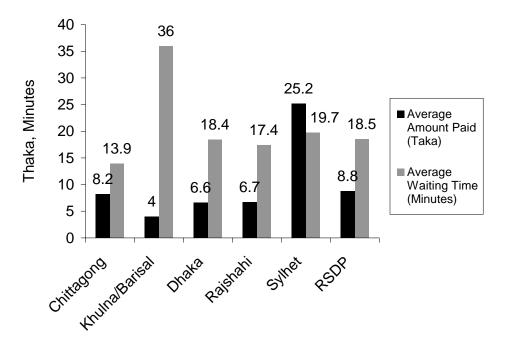


Table 9.15 Quality of hospital/clinics

Women's perceptions of quality of treatment at hospitals/clinics in most recent visit in past 3 months for total RSDP and non-RSDP areas

		RSD	P Areas			Non-RS	SDP Areas	
Quality Indicators	GOB	RSDP	Other NGO	Private	GOB	RSDP	Other NGO	Private
Average Amount Paid	33.9	8.8	8.7	145.2	10.9	7.7	53.3	112.8
Cost of Treatment								
Free	67.7	15.4	55.8	5.7	79.7	14.0	29.0	35.9
Low	5.3	13.3	9.4	10.8	2.2	7.8	0.0	0.0
Reasonable	18.0	65.2	34.8	60.3	11.2	58.6	71.0	43.9
High	8.9	6.0	0.0	23.2	7.0	19.5	0.0	20.2
Mean Waiting time at Clinic (minutes)	29.5	18.5	36.1	20.9	28.2	23.0	27.3	10.8
Assessment of Length of wait								
No wait	39.3	44.5	35.8	55.6	49.2	54.8	39.6	57.5
Low	5.3	5.2	0.0	0.0	3.0	0.0	0.0	0.0
Reasonable	32.8	36.1	46.0	15.8	29.5	21.1	49.8	35.2
High	22.6	14.3	18.2	28.5	18.3	24.1	10.6	7.3
Staff Behavior Bad Good Very Good	7.8 88.0 4.2	0.7 86.1 13.2	0.0 100.0 0.0	5.6 77.8 16.6	6.4 90.1 3.5	2.5 81.2 16.3	29.0 71.0 0.0	0.0 92.7 7.3
Quality of Services								
Bad	5.6	1.3	0.0	6.0	4.8	0.0	29.0	0.0
Good	90.6	87.2	90.6	77.4	92.7	83.7	71.0	92.7
Very Good	3.7	11.5	9.4	16.6	2.5	16.3	0.0	7.3
Cleanliness of Clinic								
Bad	4.0	1.3	0.0	0.0	2.4	0.0	0.0	7.3
Good	92.6	86.0	90.9	83.4	95.9	76.9	79.2	85.4
Very Good	3.3	12.7	9.1	16.6	1.7	23.1	20.8	7.3
•	2.0		· · ·		1.,		_ 3.0	,
Recommend Clinic to Others			400.0		0.1.1	1000		
Yes	95.5	99.4	100.0	100.0	96.4	100.0	79.2	94.9
No	4.5	0.6	0.0	0.0	3.6	0.0	20.8	5.1
Number of women	679	176	12	20	441	32	8	12

# **APPENDIX A: TABLES**

# A1. Number of antenatal care visits and timing of first visit

Percent distribution of women who had <u>a live birth in the last 35 months</u> preceding the survey by number of antenatal care (ANC) visits for the most recent birth, and by the timing of the first visit, by division and RSDP/non-RSDP areas

Number and timing of ANC visits	Chittagong	Khulna/ Barisal	Dhaka	Rajshahi	Sylhet	Total RSDP	Non - RSDP
Number of ANC visits							
None	60.3	50.0	63.8	52.8	50.6	57.1	61.9
1	13.4	14.2	13.8	13.6	12.2	13.3	10.6
2-3	19.1	26.4	16.3	22.4	25.2	20.7	18.7
4+	6.8	9.3	6.0	11.2	11.6	8.7	8.7
Don't know/missing	0.4	0.0	0.1	0.0	0.4	0.2	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median number of visits							
(for those with ANC)	1.7	1.6	1.5	2.0	2.0	1.8	1.8
Number of months pregnant at time of first ANC visit							
No antenatal care	60.5	50.0	63.8	52.8	50.6	57.2	61.9
<4	9.2	11.0	8.8	10.1	13.9	10.5	9.3
4-5	15.2	18.3	15.7	21.3	19.9	17.9	15.1
6-7	10.6	14.8	7.5	11.6	11.5	10.2	8.9
8+	4.5	5.6	4.1	4.0	3.9	4.2	4.7
Don't know/missing	0.0	0.2	0.1	0.2	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median months pregnant							
at first visit (for those with ANC)	5.6	5.6	5.4	5.4	5.2	5.4	5.5
Number	567	231	1,270	683	868	3,620	1,088

A2. Source of Antenatal Care
Percentage of women with a live birth in the last 35 months preceding the survey by whether they had at least one antenatal care (ANC) visit during the last pregnancy by source of care, RSDP and non-RSDP area

	Chittagong	Khulna/Barisal	Dhaka	Rajshahi	Sylhet	RSDP	Non-RSDP
B	20.5	50	26.2	47.0	40.4	42.0	20.1
Percentage received ANC	39.5	50	36.2	47.2	49.4	42.8	38.1
Women with a birth in last year	5.07	231	1 270	692	0.60	2.620	1.000
preceding the survey	567	231	1,270	683	868	3,620	1,088
Place of ANC checkup							
HOME							
Medical person at home	6.6	1.3	4.0	2.7	2.6	3.5	3.3
Non-medical person at home	0.5	0.0	0.0	0.0	0.0	0.1	0.7
PUBLIC SECTOR							
Hospital/medical college	7.4	3.7	3.3	4.8	3.8	4.4	5.9
Family Welfare Centre	6.9	11.3	1.4	8.0	1.8	4.4	18.9
Thana Health Complex	21.5	14.6	14.0	10.4	5.0	11.9	16.6
MCWC	0.5	3.0	2.9	1.6	1.3	1.9	3.5
Rural dispensary/Community clinic	0.0	0.4	0.0	0.9	0.2	0.3	1.8
Satellite clinic/ EPI outreach site	2.7	2.8	2.9	1.6	3.7	2.8	9.7
FWA	0.0	0.0	0.0	0.0	1.0	0.3	0.0
NIPHP NGO							
Static clinic	5.4	6.0	15.7	8.2	5.6	9.2	8.4
Satellite clinic	26.7	41.5	37.9	49.4	58.2	44.6	3.1
OTHER NGO							
Hospital	0.5	1.2	1.0	3.0	1.1	1.4	5.6
Clinic	1.1	0.8	2.0	0.7	0.5	1.1	2.2
Satellite clinic	0.8	1.2	1.1	1.2	0.3	0.9	1.6
Fieldworker	0.0	0.0	0.3	0.0	0.0	0.1	0.2
PRIVATE MEDICAL SECTOR							
Private clinic/doctor	17.7	11.5	11.4	6.5	10.9	11.2	14.4
Traditional doctor	0.5	0.4	1.9	0.6	2.2	1.4	1.6
Pharmacy	0.5	0.4	0.3	0.3	1.6	0.7	1.7
OTHER	0.5	0.0	0.0	0.0	0.3	0.1	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	224	115	460	322	429	1,550	414

# **APPENDIX B: ACPR Personnel Who Implemented the 2001 RSDP Survey**

#### **Project Director**

Dr. M. Sekander Hayat Khan

# **Deputy Project Director**

Mr. A P M Shafiur Rahman Mr. Nitai Chakraborty Ms. Tauhida Nasrin

#### **Project Manager**

Mr. M. A. Razzak Mr. SM Salamat Ullah

#### **Quality Control Officer**

Mr. Mir Md. Yousuf Kamal Mr. Pijush Kumar Bhattacharjee

Ms. Anowara Begum Ms. Lubna Sultana Ms. Kamrun Nahar Ms. Aleya Nazneen

#### **FACILITY SURVEY**

#### **Supervisor**

Mr. Md. Saidur Rahman Mr. Md. Mamunur Rashid Mr. Md. Shafiqul Islam Mr. Md. Abdul Alim

#### Interviewer

Mr. Md. Aslam Uddin Mr. Moniruzzaman

Mr. A. K. M. Abu Sufian

Mr. Salim Ahmed Mr. Md. Sharif Mia

Mr. Md. Abdur Rashid

Mr. Bipul Kumar Biswas

Mr. Sankar Sikder

Mr. Syed Ali Ahsan

Mr. Zahirul Islam

Mr. Md. Shoroar Alam (Khokon)

Mr. Md. Alam Khan Mr. Md. Ahsan Kabir

Mr. Md. Khandoker Ekramul Haque

Mr. Md. Moazzem Hossain

Mr. Sheikh Md. Abdur Rakib

Mr. Md. Jashimul Haque

Mr. Md. Mainul Hasan

Mr. Palash Kumar Dash

Mr. Md. Helal Uddin

Mr. Md. Mahmudul Hasan

Mr. S. M. Monwar Hossain (Moni)

Mr. Md. Enayet Hossain

Mr. Faruk Hossain

Mr. Rezaul Karim Chowdhury

Mr. Md. Hasibul Islam Biswas

Mr. Gazi Md. Shawkat Hossain

Mr. Mahmud Hasan Khan

Mr. Shaikh Abdur Rakib

Mr. Md. Nazmul Hassan

Mr. Syed Ahsan Habib

Mr. Md. Soyful Alam

#### **Household Listing Mapping and Community** Survey

# **Listing Supervisor**

Mr. Mahbubur Rahman

Mr. Md. Zakir Hossain

Mr. Rezaul Karim

Mr. Md. Tofazzal Hossain

Mr. Md. Rezaul Haque

Mr. Md. Hafizur Rahman

Mr. Md. Saiful Islam Palash

Mr. Md. Delwar Hossain

Mr. Md. Salahuddin

Mr. Md. Manjurul Alam

Mr. Md. Al Amin Sikder

Mr. Saiful Islam Saiful

Mr. Md. Afzal Hossain

#### Lister

Mr. Md. Mohiuddin Talukder

Mr. Md. Mayin Hossain

Mr. Ashraful Islam

Mr. Md. Nazmul Islam

Mr. Md. Zahid Hossain

Mr. Jahidul Alam

Mr. Altaf Hossain

Mr. Md. Shamsur Rahman

Mr. Md. Sayadul Haque

Mr. A K M Mostafizur Rahman

Mr. Md. Rakibul Islam

Mr. Mohammad Kamal Hossain

Bhuiyan

Mr. Abdus Sobur

Mr. Abu Baker Siddique

Mr. Kh. Rafiqul Islam Sajjad

Mr. Md. Aminul Islam

Mr. Khalid Bin Sayed

Mr. Jahidul Islam

Mr. Md. Abdur Rauf

Mr. Shiblal Biswas

Mr. Mizanur Rahman

Mr. Enamul Ahsan Tetu

Mr. Sultanul Arefin

Mr. Abdul Hannan

Mr. Md. Abdur Razzak

Mr. Md. Sawkat Ali Khan

Mr. Md. Hazrat Ali

Mr. Md. Habibul Islam Biswas

Mr. Khandaker Yeahia

Mr. Motiur Rahman

Mr. Md. Amdadul Haque

Mr. Saiful Islam Sarker

Mr. Maruf Ahmed

Mr. Md. Nasiruddin

Mr. Md. Abdus Samad

Mr. Md. Masudur Rahman

Mr. Md. Arifuzzaman

Mr. Md. Rabiul Haque

Mr. Md. Hasan Tareq

## **Household Survey**

## **Male Supervisor**

Mr. Sayed Ahmed Sikder

Mr. Sharif Al Hasan

Mr. Farukul Haque Sarker

Mr. Md. Zahid Shafiqur Razzak

Mr. Mollick Maruful Islam

Mr. S. M. Moshiur Rahman

Mr. Abdul Latif

Mr. Sultan Mahmud

Mr. A. T. M. Anwar Hossain

Mr. Md. Abul Kasem Mia

Mr. Md. Omar Faruk

Mr. Hasen Ali

Mr. Md. Ehosan Ali Mollah

Mr. Moktarul Alam

Mr. Ashraful Alam

Mr. Monirul Islam

Mr. Abdus Sattar

Mr. Masuduzzaman

#### **Female Supervisor**

Ms. Rebeka Sultana

Ms. Sharmin Sultana

Ms. Romana Akhter Shilpi

Ms. Dali Ara

Ms. Nahida Akter Banu

Ms. Arzu Akter

Ms. Sadikun Nahar Shima

Ms. Farzana Rahman (1)

Ms. Zannatul Ferdous

Ms. Shelleyana Akhter Shelly

Ms. Rehana Begum

Ms. Hasina Khatun

Ms. Farzana Rahman(2)

Ms. Lipi Khandaker

Ms. Kismot Jahan Ferdousi

Ms Mahmuda Shirin

Ms. Shahanara Bithi

Ms. Silvia Mariam Khan

Ms. Shamima Sultana Bony

Ms. Sharmin Rahman

#### **Interviewer**

Ms. Maksuda Khanam

Ms. Romana Akhter

Ms. Shahina Begum Ms. Aklima Akhter

Ms. Kanchon Mala

Ms. Nasrin Akter

Ms. Muslema

Ms. Rokeya Akhter

Ms. Marjina Khanam

Ms. Masuda Bhuiyan

Ms. Shiuly Islam

Ms. Shahina Sultana

Ms. Jesmin Pervin

Ms. Rubina Khandoker

Ms. Farzana Pervin Konok

Ms. Sarmin Jahan

Ms. Sumita Chakma

Ms. Shamsunnahar Salma

Ms. Masuma Chowdhury

Ms. Mishang Marma

Ms. Sultana Momtaz

Ms. Sagorika Thigitidi

Ms. Alina Chakma

Ms. Fatema Khatun

Ms. Syeda Ferdousi Kusum

Ms. Mahmuda Begum

Ms. Farida Pervin (1)

Ms. Kabita Biswas

Ms. Nurun Nahar

Ms. Nazma Khanam

Ms. Suraia Parvin Trishna

Ms. Salma Akhter

Ms. Shipra Costa

Ms. Shamima Islam

Ms. Rozina Khatun

Ms. Eti Chakma

Ms. Azmira Parvin Rekha

Ms. Syeda Nazmun Nahar Begum

Ms. Farida Pervin (2)

Ms. Sk. Suranjana

Ms. Dipa Biswas

Ms. Sultana Khatun

Ms. Hosneara Begum (Panna)

Ms. Bithika Biswas

Ms. Shanga Mitra Chikma

Ms. Shahina Akhter

Ms. Atithey Chakma

Ms. Sharifa Yasmin

Ms. Lovely Chakma

Ms. Sanchita Barua

wis. Sancinta Barua

Ms. Shafali Begum Ms. Taskin Akhter

Ms. Nasrin Ara Begum

Ms. Rashida Akhter

Ms. Rina Biswas

Ms. Rowshan E Sitara

Ms. Pervin Ara

Ms. Nazma Begum

Ms. Santu Siddiqua

Ms. Pervin Akhter Shilpi

Ms. Shirin Akhter

Ms. Lucky Akter

Ms. Mansura Akther

Ms. Suparna Biswas

Ms. Sveda Shilpi Sultana

Ms. Afroza Islam

Mr. Morsheda Yasmin

Most. Joytsna Akhter

Ms. Hashina Akther

Ms. Dilara Begum

Ms. Nasima Begum

Ms. Nahia Akhter

Ms. Riki Chakma

Ms. Sufia Afroz

Ms. Karuna Chakma

#### **Data Processing Supervisor**

Mr. Khairul Bashar

#### **Data Entry Operators**

Ms. Nurun Nahar

Mr. Md. Sayful Islam

Mr. Md. Arif Hossain

Mr. Md. Alamgir Hossain

Mr. Md. Soyful Alam

Ms. Shahin Akhter

Mr. S. M. Sanowar Hossain

Mr. Mohammed Hossain

Mr. Syed Sarwar Uddin Mahmud

Mr. Md. Mahmudul Hasan

Mr. Md. Kamruzzaman

Mr. Md. Abedur Rahman Munshi

Mr. Md. Monir Uddin

# **APPENDIX C: QUESTIONNAIRES**